

**NEW ENERGY INDUSTRY TASK FORCE
BUSINESS CASE SUBCOMMITTEE**

Policy Recommendations

December 19, 2012

Recommendations

Amendments to Statutes

1. Recommend that all providers of electric and gas service in Nevada report goals, programs and status updates annually to the Office of Energy.
 - a. *Background:* NV Energy is required to comply with the portfolio standard pursuant to NRS704.7821, as they are the only utility considered to be a “provider of electric service that is a public utility”. As such they submit annual reports to demonstrate compliance with the portfolio standard pursuant to 704.7825. Currently, NSOE requests basic information regarding energy consumption from all of the electric utilities and the gas utilities in the state in preparation of the annual Status of Energy report pursuant to 701.160.
 - b. *Conclusion:* The Task Force was in agreement that the State should work towards the establishment of statewide goals. The details need to be clarified as to what will be required and through what mechanism this will be addressed.

2. Recommend that that 2.4 multiplier to solar REC’s be clarified in NRS 704.7822 so that it is clear that it is for net metered systems only and that the multiplier be reduced over time to 1.0 by January 1, 2016. Existing systems of all sizes should be “grandfathered in”.
 - a. *Background:* PV has become significantly more price competitive since the legislation was created. Additionally, several projects “behind the meter” that were larger than 1 Megawatt received the 2.4 Renewable Energy Credit multiplier.
 - b. *Conclusion:* While the 2.4 multiplier assisted solar PV developers by providing a more cost competitive product to help meet the state’s goals, it has reduced the amount of projects that can participate in helping the utility meet its portfolio standard. Since solar PV has become much more cost competitive with other renewable energy systems, the Task Force was in agreement that the 2.4 multiplier for solar REC’s should be reduced and eliminated over time.

3. Recommend an amendment to NRS 701A.340 to allow geothermal projects to be considered on equal footing when applying for renewable energy tax abatements.
 - a. *Background:* Geothermal project developers are currently required to get county approval to be eligible for property tax abatement, when other renewables are not.
 - b. *Conclusion:* Geothermal energy is an important component of the State’s energy portfolio and is an attractive energy source for export to other western load centers. As such, this technology should be given the same opportunity to receive property tax abatements

NRS 701A.340 is hereby amended to read as follows:

701A.340 1. "Renewable energy" means:

- (a) Biomass;
- (b) Fuel cells;
- (c) *Geothermal energy*;
- (d) Solar energy;
- [(d)] (e) Waterpower; or
- [(e)] (f) Wind.

2. The term does not include coal, natural gas, oil, propane or any other fossil fuel
[, *geothermal energy*] or nuclear energy.

Recommendations to the Public Utilities Commission of Nevada

Recommendation: Task Force Chair to send a letter to the Public Utilities Commission of Nevada requesting they open a docket to review the following issues related to renewable energy systems and net-metering.

1. Evaluate the methodology used in the NV Energy Large and Small Standby Riders (LSR and SSR) to determine, for both traditional bundled customers and time of use customers, how the calculation is done, what the cost is to customers and if modifications to the LSR and SSR tariffs are needed. This should also include an evaluation of whether the peak power triggers need to be modified.
 - a. *Background*: The Task Force received a presentation on how the Large and Small Standby Riders were structured, but it was unclear as to how these Standby charges impact customers who may want to install generation systems on their side of the meter (co-generation systems, etc).
 - b. *Conclusion*: There could be an opportunity to support innovative energy strategies that can reduce a customer's peak power requirements and provide economic development incentives (or removal of disincentives) if structured appropriately to account for adequate standby charges.
2. Evaluate the impact, costs, and benefits of shifting the compliance cap for net-metered systems from 2% of name plate power (MW) to 2% of peak energy capacity (MWh).
 - a. *Background*: The impact of net metering has been studied by the utility. The report should a wide range of scenarios that could accommodate a wide range of net metered systems on the grid without great impact.
 - b. *Conclusion*: Evaluating the impacts of basing the net metering cap on peak energy capacity, and tying net metered projects to a energy target versus a power target would ultimately allow additional net metered systems to be included under the cap and provide a more realistic account of the system usage.
3. Investigate the ability of NV Energy customers to purchase renewable energy from utility scale renewable projects or mechanisms on the utility side of the meter and remain a bundled customer of the utility including, but not limited to:
 - Green Tariffs
 - Virtual Net Metering
 - Community solar programs

The investigation should evaluate the costs and benefits of net-metered systems to the grid.

- a. *Background:* Electric utility customers may be interested in purchasing and using renewable energy power but could be restricted on the options to allow them to do so. If for example, a home owner does not have the roof size, orientation or the land area to accommodate a solar PV installation, the State should consider options to allow them to purchase renewable power off-site.
- b. *Conclusion:* Utilize best practices from other utility programs that provide additional opportunities to take advantage of renewable energy systems.

Additional Recommendation to the Task Force Chair

1. Recommend that Renewable Energy, Energy Efficiency and Sustainability Education be required in Nevada school curriculum.
 - a. *Background:* Currently the K-12 and the University systems offer certain clean energy curriculum at various age and competency levels. While both systems value these programs, there is no incentive to make this a basic part of the curriculum and therefore, it may be inconsistent among schools, grade levels and degree programs.
 - b. *Conclusion:* The State should undertake a discussion regarding the benefits, authorization and incentives for the primary and secondary schools for doing so, the scope of and sources available for the renewable energy programs.

**NEW ENERGY INDUSTRY TASK FORCE
BUSINESS CASE SUBCOMMITTEE**

Resource Sharing Recommendation

January 15, 2013

Recommendation: The Public Utilities Commission of Nevada (PUCN) should open an investigatory docket to determine whether Nevada retail customers could benefit economically from mutually beneficial resource exchange and sharing arrangements with neighboring states.

The investigation should:

- Identify analyses required to assess potential benefits of resource exchange and sharing arrangements between Nevada and neighboring states. The resources to be considered in the investigation shall include conventional and renewable generation, demand response, transmission and ancillary services
- Analyze and report on rational options for NRS changes such as modifying NRS 704.746 to clarify that construction of new transmission capacity to facilitate mutually beneficial exchange and sharing arrangements of renewable, demand response, or conventional generation with neighboring utilities and to coordinate system operations, enter into beneficial market operations (EIM), and share generation resources and reserves to accommodate higher penetration levels of renewable resources are to be considered in the resource planning process and resource procurements.
- Consider utility incentives and regulatory and business model changes that support mutually beneficial resource exchange and sharing arrangements
- Solicit broad stakeholder input from Nevada, neighboring states, Western and federal organizations

Reporting Requirements:

On or before March 1, 2014 the Commission shall submit a written report of its findings and recommendations from the investigatory docket to the Nevada State Office of Energy.

The report should include without limitation recommendations regarding:

- Specific actions that should be implemented immediately through regulation to promote mutually beneficial electricity exchanges.
- Specific actions that should be implemented as soon as possible but that may require legislative action.
- Identification of additional actions that might be beneficial but require further study before implementation. The further analysis required should be specified and the analysis may include: improved measurement of potential benefits of resource exchange and sharing arrangements, identification of potentially beneficial market reforms and operations, investigation of best practice/least cost provision of integration services to support variable generation resources, and investigations of new utility business models, regulations and

regulatory incentives that would facilitate beneficial economic electric power exchanges between Nevada and its neighboring states

- Identification of regulatory and legislative action necessary to authorize the resource sharing methodologies other beneficial market reforms and operations, least cost provision of integration of renewable energy resources, and new utility business models and regulatory incentives that would facilitate economic electric power results; and
- The procedures and mechanisms that would be necessary to implement the resource sharing and other beneficial market reforms and operations, least cost provision of integration of renewable energy resources, and new utility business models and regulatory incentives that would facilitate economic electric power results and methodologies.

Background: In its 2010 Integrated Resource Plan, NV Energy demonstrated the economic benefits to retail customers in Nevada of conventional resource sharing between Sierra Pacific Power Company and Nevada Power Company's electric systems. It used this benefit analysis to justify approval of the ON Line Transmission Project. The benefits identified in the analysis included:

- Dispatch optionality
- Uncorrelated variability
- Load diversity –reduction in planning reserve margin requirement
- Shifting peak
- Optimization of Gas Transportation assets
- Optimization of regional market purchases
- System reliability benefits
- Improved ability to accommodate variable energy generation
- Protection against conventional fuel source uncertainty
- Protection against carbon and greenhouse gas uncertainty
- Fuel scheduling

These same resource sharing benefits potentially exist between Nevada and utilities in neighboring states. Furthermore, integration costs of variable energy resources such as wind and solar increase at higher penetration levels. These costs can be alleviated with greater cooperation and resource sharing (including renewable energy exchanges) between electric systems. Nevada currently has underutilized fossil generation capacity in northern and southern Nevada that includes efficient gas fired generation that has been built within the last ten years. These resources could be used for generation export to neighboring states for the benefit of Nevada customers. California, for example is confronted with a number of challenges: Once-Through Cooling retirements, possible nuclear generation retirements, and higher penetration levels of renewable energy resources. Nevada customers could benefit from California interest in exchanges of conventional and renewable energy resources to alleviate these challenges.

Conclusion: Nevada retail customers could benefit economically from mutually beneficial exchanges with neighboring states of conventional and renewable energy resources and by sharing resources that support variable energy renewable resources.

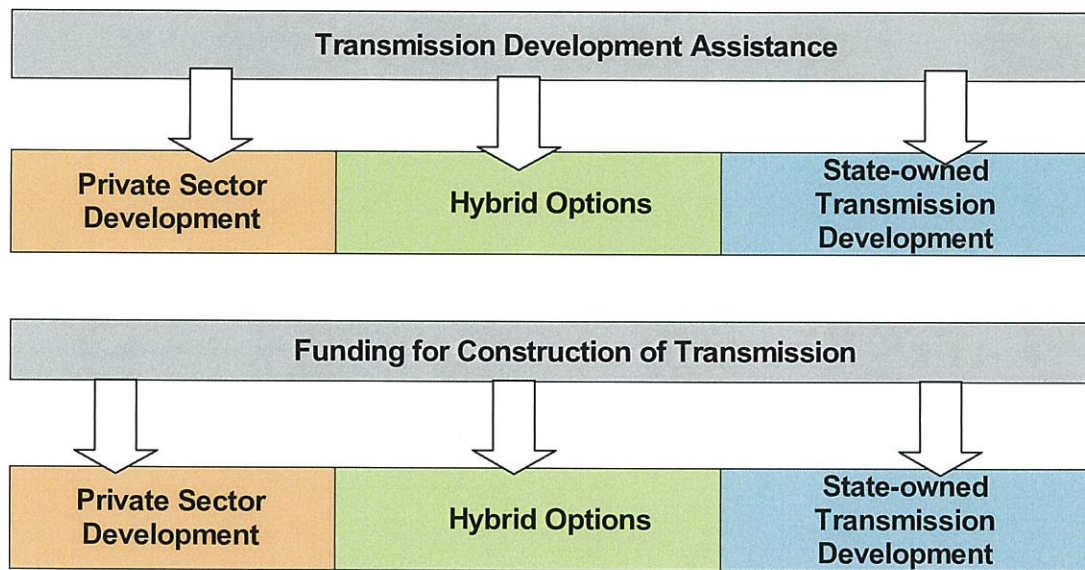
**NEW ENERGY INDUSTRY TASK FORCE
SUBCOMMITTEE on TRANSMISSION FINANCING**

Summary of Financing Options

January 11, 2013

The transmission finance subcommittee of the New Energy Industry Task Force met numerous times throughout 2012 to discuss the variety of available transmission financing options. The subcommittee is chaired by Lawrence Willick, of LS Power. The work of this subcommittee is integrally related to the transmission planning subcommittee, chaired by Commissioner Rebecca Wagner of the Public Utilities Commission of Nevada, and they merged in the fall of 2012 to allow the expert resources to collaborate on these issues.

The purpose of the subcommittee work was to define those options, describe the pros and cons of each and identify a recommended set of options to bring to the full Task Force. Financing options were to focus on how the State might be able to participate in the development of lines identified through the NEAC Transmission Routing process, as well as other active transmission routing projects throughout the state. Financing options were divided into the following categories:



The subcommittee heard presentations from a variety of groups that have experience in transmission financing to better frame the discussion of the advantages and disadvantages of options for policy recommendation to facilitate renewable transmission financing. Presentations included those from:

- LS Power
- NV Energy
- Valley Electric Association
- New Mexico Renewable Transmission Authority (NM RETA)
- Wyoming Infrastructure Authority (WYIA)
- Credit Suisse Securities

A table identifying the advantages and disadvantages of the various options is at the end of this report. The summary of recommendations includes two primary areas where the State could participate in the development of transmission for the export of renewable energy to load centers around the West.

With regards to the Development Assistance, the subcommittee felt that the State would not be a likely development partner because of the current economic climate. However, the subcommittee felt that the State could provide value to the development process by offering marketing and siting assistance. By advocating for Nevada's renewables, promoting a robust renewable energy future through policy and regional planning efforts, the State could offer a degree of confidence in the development of costly transmission projects for the long term benefit of the state and the region. Also recommended for consideration was the development of a Request for Information, similar to that offered by the State of New York. It sought to find the highest cost benefit options for infrastructure improvements to advance their Energy Highway initiatives. The subcommittee felt that recommendation had little risk and only a small outlay of state resources but could yield innovative solutions.

Under the Construction of Transmission phase of development, the subcommittee again, thought that the State would be an unlikely partner due to the current economic climate and the limited ability to utilize bond financing. Partners such as the Western Area Power Administration or other federal partners may be better suited to team with transmission investors or utilities to pay for the construction of transmission projects.

The group's recommendations were recorded in meeting minutes but have not yet been carried to the full Task Force. The subcommittee suggested that these recommendations be revisited after the Business Case subcommittee summarized their finding in the Business Case report.

End of Report

Enclosure: Options for Policy Recommendations to Facilitate Renewable Transmission Financing Charts

Options for Policy Recommendations to Facilitate Renewable Transmission Financing

Development Assistance	Advantages	Disadvantages
Private Sector Development – Jurisdictional Utility / Independent Transmission Company (ITC) Without State Assistance	<ul style="list-style-type: none"> No state capital or rate payer risk 	<ul style="list-style-type: none"> High initial risk to developers Limited interest without anchor assets High rate of return could lead to increased cost to consumers
State-Owned Transmission Company (STC)	<ul style="list-style-type: none"> High level of state control 	<ul style="list-style-type: none"> State bonding capacity or financing ability may be hindered by economic climate Expenses incurred by state unless and until self-funding Growth in state government workforce
Hybrid Options		
<i>Ownership Options</i>		
<ul style="list-style-type: none"> State co-fund development with Private Sector (like WYIA) 	<ul style="list-style-type: none"> Provides tangible benefits for developers (risk reduction) Advances project development 	<ul style="list-style-type: none"> Puts taxpayer dollars at risk Requires selecting projects
<ul style="list-style-type: none"> State co-own (but limited co-funding) projects to reduce project risks – eminent domain (NM RETA) 	<ul style="list-style-type: none"> Relatively small outlay of state resources 	<ul style="list-style-type: none"> Could put state in difficult situation politically
<ul style="list-style-type: none"> State backstop private development costs in the event a project does not proceed (So state does not fund costs, but would repay abandonment costs. For a utility this would be by approving a project in the utility IRP, for an ITC by other means) 	<ul style="list-style-type: none"> Encourages investment to advance projects 	<ul style="list-style-type: none"> Puts taxpayer/ratepayer dollars at risk Requires selecting projects
<i>Assistance Options</i>		
<ul style="list-style-type: none"> Marketing assistance – advocating for Nevada renewables in regional planning, in other venues, advocating for coordinated procurement 	<ul style="list-style-type: none"> Minimal outlay of state resources 	
<ul style="list-style-type: none"> RFI to Identify Highest Benefit: Cost Option (New York Energy Highway, AZ biannual assistance plan) 	<ul style="list-style-type: none"> Small outlay of state resources 	<ul style="list-style-type: none"> Uncertain outcomes

*Highlighted cells represent areas recommended for further consideration

Options for Policy Recommendations to Facilitate Renewable Transmission Financing cont'd

Funding for Construction	Advantages	Disadvantages
Private Sector – Utility or Independent Transmission Company (ITC)	<ul style="list-style-type: none"> No state capital or rate payer risk 	<ul style="list-style-type: none"> High initial risk to developers Limited interest without anchor assets High rate of return could lead to highest cost to consumers
State-Owned Transmission Company (STC)	<ul style="list-style-type: none"> Reduced total cost by using tax-advantaged debt High level of state control 	<ul style="list-style-type: none"> State bonding capacity or financing ability may be hindered by economic climate Expenses incurred by state until self-funding Growth in state government workforce
<ul style="list-style-type: none"> Western Area Power Administration and other Federal Power Marketing Administration Transmission Infrastructure Program Funding 	<ul style="list-style-type: none"> Low interest costs reduces costs to ratepayers Low interest costs makes a project more competitive 	<ul style="list-style-type: none"> Outside of state control
<ul style="list-style-type: none"> Trunkline Approach (“If you build it, they will come”. Approve recovery of transmission revenue requirement for renewable delivery transmission prior to subscriptions.) 	<ul style="list-style-type: none"> Provides tangible benefits to project sponsors (cost recovery) 	<ul style="list-style-type: none"> Puts taxpayer/ratepayer dollars at risk
<ul style="list-style-type: none"> Bonding / state guarantee (WYIA, others) 	<ul style="list-style-type: none"> Tangible benefits to developers of reduced risk and borrowing costs 	<ul style="list-style-type: none"> Puts taxpayer dollars at risk
<ul style="list-style-type: none"> Approve recovery of all or portion of project revenue requirement (utility in an IRP, independent through a transmission contract) 	<ul style="list-style-type: none"> Encourages investment to advance projects 	<ul style="list-style-type: none"> Puts taxpayer / ratepayer dollars at risk
<ul style="list-style-type: none"> Co-own projects to reduce project costs – property taxes (like NMRETA) 	<ul style="list-style-type: none"> Provides tangible benefits in cost reductions to contribute to project competitiveness 	<ul style="list-style-type: none"> Reduces benefits of transmission investment to the state

*Highlighted cells represent areas recommended for further consideration

**NEW ENERGY INDUSTRY TASK FORCE
SUBCOMMITTEE on TRANSMISSION PLANNING**

Transmission Planning Recommendation

January 11, 2013

Recommendation: The Public Utilities Commission of Nevada (“PUCN”) should exercise its authority pursuant to NRS 704.741(2)(b) and open a rulemaking docket to revise the renewable energy zones designated in NAC 704.880. The PUCN should consider new information and data that has become available since it designated the renewable energy zones in late 2009. Sources for new information and data include, but are not limited to, the following:

- The Strategic Plan for Conservation of Greater Sage-Grouse in Nevada
- The Western Renewable Energy Zone process (Western Governors’ Association)
- Solar Energy Development Programmatic Environmental Impact Statement process (US Department of Energy and US Department of Interior)
- Desert Renewable Energy Conservation Plan (State of California)
- California Renewable Energy Transmission Initiative (State of California)
- Local, State and Federal agencies (US Department of Defense, US Department of the Interior, Nevada Department of Wildlife, Clark County Multiple Species Habitat Conservation Plan, etc)

The Commission should also consider similar efforts that have occurred in other states as guidance for its process (Arizona Restoration Design Energy Project).

The Commission should develop a definition to clarify or define transmission constraints. It is unclear if the constraint is related to the lack of transmission or the lack of transmission capacity or both.

If feasible, the Commission should consider identifying areas that have adequate transmission and are renewable energy resource rich in order to draw a distinction from the renewable energy zones as defined by the statute.

Background: Assembly Bill 387 (“AB 387”) was enacted in 2009 and directed the PUCN to “designate renewable energy zones and revise the designated renewable energy zones as the Commission [PUCN] deems necessary.” (NRS 704.741(2)(b).) The term “renewable energy zone” is defined as “specific geographic zones where renewable energy resources are sufficient to develop generation capacity and where transmission constrains the delivery of electricity from those zones to customers.” (NRS 704.741(5)(b).)

Pursuant to the directive to designate renewable energy zones, the Commission opened a rulemaking docket designated as Docket No. 09-07011 and on December 21, 2009, the PUCN adopted regulations designating renewable energy zones. The regulations are codified in NAC 704.880.

The designated renewable energy zones were adopted from the work conducted by the Nevada Renewable Energy Transmission Access Advisory Committee (“RETAAC”).¹ The purpose of RETAAC was to “propose recommendations for improved access to the grid system by which

¹ RETAAC was convened by Governor Gibbons pursuant to an Executive Order and consisted of two phases. The findings of RETAAC are contained in the Phase I Report (December 31, 2007) and Phase II Report (July 1, 2009).

renewable energy industries can set up and have market access in Nevada and neighboring states.”

Conclusion: Since the time the PUCN designated renewable energy zones in late 2009, there have been new studies and/or reports that have been issued that may affect the existing renewable energy zones designations. As such, it is recommended that the PUCN revise, if warranted, the renewable energy zones designated in NAC 704.880.