Emerging Regulatory Issues: Nevada’s Response to 111(d)

Alaina Burtenshaw
Chairman, Public Utilities Commission of Nevada
NMSU Current Issues Conference
April 2015
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- The views and opinions expressed in this presentation are solely those of my own, and do not necessarily reflect the official policy or position of the PUCN or the state of Nevada.
## Precursor: Reviewing the 4 Building Blocks

<table>
<thead>
<tr>
<th>Building Block</th>
<th>Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reducing the carbon intensity of generation at individual affected EGUs through heat rate improvements</td>
<td>Inside the Fence</td>
</tr>
<tr>
<td>2. Reducing emissions from the most carbon-intensive affected EGUs by substituting generation at those EGUs with generation from less carbon-intensive affected EGUs</td>
<td>System Dispatch</td>
</tr>
<tr>
<td>3. Reducing emissions from affected EGUs in the amount that results from substituting generation at those EGUs with expanded low- or zero-carbon generation</td>
<td>Renewable Energy</td>
</tr>
<tr>
<td>4. Reducing emissions from affected EGUs in the amount that results from the use of demand-side energy efficiency that reduces the amount of generation required</td>
<td>Demand-Side Management</td>
</tr>
</tbody>
</table>
Jurisdictional Issues: Reaching Beyond the Fence?

• The United States Environmental Protection Agency’s (USEPA) existing regulatory authority to regulate emissions from specific sources is limited to the physical boundaries of such sources.

• However, to implement Building Blocks 2, 3, and 4 of the Clean Power Plan, state air quality agencies must submit implementation plans that would expand the USEPA’s jurisdiction in an unprecedented manner to include oversight and enforcement capability over state public utility regulators and energy offices.
Jurisdictional Issues: Usurping Authority

- The Clean Power Plan jeopardizes precedential-state authority to dictate energy and resource planning
- Traditional authority of states over the areas of renewable energy, measures to reduce end-user demand, and integrated resource planning would ultimately be usurped by the federal government under the Plan.
Jurisdictional Issues: Perspectives

- From a legal perspective, States must submit plans that would ultimately expand the EPA's jurisdiction to include unprecedented oversight over state public utility regulators.
- From a policy perspective, it is unclear whether state-specific issues will be properly addressed under this expansion of federal oversight.
Interim Goal – Nevada’s Problem

• In developing Nevada’s goals, the USEPA did not consider the remaining useful life of the affected sources.

• Section 111(d)(1) of the Clean Air Act provides: “In promulgating a standard of performance under a plan prescribed under this paragraph, the Administrator shall take into consideration, among other factors, remaining useful lives of the sources in the category of sources to which such standard applies.”

• Still, USEPA set a retirement goal of 2020 for Nevada’s remaining coal fleet.
Interim Goal – Nevada’s Only Option

- The only way Nevada can foreseeably comply with the proposed interim goal is to utilize all four Building Blocks, which would require the premature retirement of two facilities: North Valmy Generating Station (Valmy) and TS Power Plant.
Baseline - Why 2012?

- A single year is not statistically relevant and does not indicate a trend, and 2012 was an anomalous year because of the low price of natural gas, which have historically been quite volatile.
- A three-year average would be more representative of the emissions for calculating Nevada’s baseline.
The USEPA has included all of the renewable energy generated within each state for the 2012 baseline from which it has calculated the renewable energy building block. However, the USEPA is proposing another approach for crediting renewable generation for compliance with goals: states would be permitted to account for all of the CO₂ emission reductions from renewable energy measures even if they were implemented or realized out-of-state.

For Nevada, this means that, potentially, Nevada may not be allowed to receive the benefit of renewable energy that is exported out-of-state for its compliance, even though that RE was used to calculate Nevada’s Building Block 3, resulting in a lack of symmetry between goal computation and compliance demonstration.

Thus, if RECs are used for compliance purposes, then Building Block 3 should be recalculated to remove the portion of RE that is exported to other states.
• Renewable energy sources have no \( \text{CO}_2 \) emissions and therefore are not subject to EPA regulation

• Calculating renewable energy targets by region is not representative of actual planned generation.

• Nevada’s RPS includes various multipliers and other factors that inflate the actual levels of RG generation.

• Interim goals for renewable energy do not account for load growth.
Demand-Side Management

• EPA’s analysis is based on an inappropriate discount rate.

• Nevada’s housing stock is relatively new (almost ½ constructed since 1995), limiting the potential for savings. 29.5% of Nevada’s housing stock was built between 2000-2010, 18.5% built between 1995 to 2000, and 11.4% between 1990 to 1994.

• Estimated program costs would be burdensome to Nevada ratepayers, who pay for these EE measures, and could pay even more should if Nevada were to increase its EE spending by approximately 23% in 2023, which USEPA proposes.
System Dispatch: Infrastructure Needs

- Changing resource mix/generation patterns affects the transmission system and corresponding operating practices that are in place. Generation retirements may impact the ratings on transmission paths and require either new transmission to be built or new safety limits/protection to be applied to the transmission system.

- Changing generation requirements also affects fuel delivery requirements. There may be more of a demand for gas pipeline infrastructure as result of utilities adding more natural gas fired resources in an attempt to comply with the CPP.

- There are also, time constraints on developing new generation and transmission projects (Transmission development times are in the 8-10 year range)
System Dispatch: Regional Issues

- Regions should be addressing the Clean Power Plan now in order to meet the hard deadlines in the proposed plan.
- WestConnect is in development and may not be ready to address the Clean Power Plan for some time.
- On a WECC wide level: coordinated WECC wide resource and transmission planning is not required.
- Additional regional planning mechanism might be needed but they may be difficult to implement in time to meet the deadlines in the proposed Clean Power Plan.
Reliability

- USEPA assumes that states have the authority to re-dispatch large amounts of capacity and generation from existing coal-fired EGUs to existing NGCC EGUs.
- However, in Nevada, it is questionable whether either the NDEP or the PUCN has the authority to require such re-dispatching.
- Moreover, an assessment of reliability is critical before extensive re-dispatching decisions are made. Implementation will result in resource retirements, changes in operating practices, changes in how the transmission system is operated, and an increased reliance on natural gas and new renewable resources.
- Resource adequacy does necessarily equate to corresponding transmission system reliability.
Reliability & Nevada’s Profile

- Nevada’s load profile is unique, with electricity demand relatively low during winter, and substantial in the summer.
- Resource adequacy levels in Nevada are developed based on meeting peak load plus providing a level of reserves for contingencies such as forced outages of generation equipment.
- During peak summer hours, replacing energy from coal-fired EGU’s with energy from NGCC EGUs will require Nevada utilities to secure additional resources to replace the coal capacity because none of the coal-fired EGUs in Nevada have a hot stand-by feature, and require 8 to 24 hours to get up to full load.
Reliability & Nevada’s Profile

• If coal-fired EGUs are shut down, Nevada utilities would need to find replacement capacity to serve as reserve if Nevada is to meet its interim and final goals.

• While USEPA’s analysis assumes there is excess capacity throughout the year, Nevada NGCC EGUs operating at peak levels would not provide sufficient capacity to absorb base load currently served by coal-fired EGUs.
Reliability & Resource Diversity

- Extensive reliance on natural gas minimizes portfolio diversity, which increases cost volatility to ratepayers. Retiring coal-fired EGUs requires more NGCC EGUs, which avails states to significant vulnerability to natural gas fluctuations.

- While the U.S. has experienced relatively low natural gas prices, those prices are likely to rise in the face of increased competition to supply existing and newly-constructed EGUs.
Final Thoughts

• As the 111(d) process unfolds, state government and their regulators should consider the role jurisdictional issues play in retaining state regulatory authority, and in ensuring cost-effective implementation of these federally-mandated goals.

• Moreover, states should perform a critical review of the analyses adopted by USEPA in identifying and mandating state-specific goals under the Clean Power Plan.
Questions?