August 7, 2015

Re: Comments on July 9 Joint Agency Symposium

Introduction

California Municipal Utilities Association, Los Angeles Department of Water and Power, Northern California Power Agency, Pacific Gas and Electric Company , Sacramento Municipal Utility District, Southern California Edison, and Southern California Public Power Authority (the Joint Utilities), appreciate the opportunity to provide comments on the July 9 Joint Agency Symposium (Symposium).

We support California's clean energy goals and applaud the Governor's leadership in setting an ambitious 2030 GHG target. The Joint Utilities are committed to implementing programs that will achieve these goals at reasonable costs to electricity customers and look forward to working with the Administration to achieve this common goal.

California's electric sector has already significantly contributed towards meeting the State's ambitious clean energy goals through procuring renewable generation, funding energy efficiency incentives, supporting distributed resources, investing in key infrastructure projects, and promoting the large-scale deployment of electric vehicle charging infrastructure. According to the recently released 2013 GHG Inventory, California's electric sector is well on its way to achieve a 40% reduction below 1990 levels by 2030. In 2013, the electric sector was already 20% below 1990 levels.

Moving forward, we believe the path to achieving the state's long-range environmental goals, while continuing to grow California's economy, is through a comprehensive, integrated, and flexible approach that manages costs for our customers, ensures electric and gas safety and reliability, and creates a model program for others to follow.

Renewable Energy

The Joint Utilities are committed to supporting the State in achieving its 2020 and 2030 GHG emissions reduction goals and believe that we must accelerate the deployment of carbon reduction strategies to do so. Instead of increasing RPS targets in isolation, however, the State should consider how renewables procurement can best support its broader GHG goals, in the context of a comprehensive framework to reduce GHG emissions through a combination of actions. California is and can continue to be a leader in renewable energy, but should consider its

actions carefully in order to encourage other jurisdictions to follow its lead. Rather than simply increasing the current RPS requirement, the state should consider a broader GHG reduction framework founded on four key principles:

- Safety and Reliability: Clean energy policies should maintain the safety and reliability of the electric grid.

- Affordability: Clean energy policies should be cost-effective, not substantially increase costs to consumers, and support sustainable growth in California's economy.

- Optionality: Clean energy policies should encourage innovation and enable California's utilities to dynamically adjust how they comply with environmental goals as customer needs and technologies evolve.

- Comprehensive: To achieve California's long-term GHG reduction goals, every sector of the economy must contribute. Clean energy policies must take a multi-sector approach to address GHG emissions, recognize cross-sector emission shifts, and allocate costs equitably among all market participants.

Many of these principles were discussed during the Symposium and we strongly urge the Agencies to support this more integrated approach. There are also opportunities to improve renewables procurement requirements. For example, the Renewable Portfolio Standard (RPS) program should be redesigned to properly value existing in-state distributed renewable generation (renewable DG) and fully count all future renewable DG toward meeting RPS requirements, regardless of whether the energy is used on-site or exported to the grid, and with due reconsideration of the cost-prohibitive tracking and certification requirements that exist today. Additionally, load-serving entities (LSEs) should be provided the flexibility to better manage risk from procurement and load variability as well as achieve cost-savings for customers. Restrictions around banking of excess renewable procurement should be relaxed. The current RPS program requirement to subtract generation from short-term contracts in the banking calculation causes loss of procurement value, thereby unfairly penalizing LSEs that have procured renewables early and robustly to ensure compliance. These deficiencies in the current RPS program need to be addressed going forward as California pursues a higher renewable energy goal.

Operational Challenges

Incremental renewable mandates create operational challenges that, if not addressed, can compromise grid reliability. More intermittent renewables generation will make it harder for grid operators to balance electricity supply and demand, increase the need for ramping capacity, and if not mitigated, will lead to excess renewable energy supply and expensive curtailment events.

These challenges are well-documented. The state's five largest utilities[1] (5 Utilities) retained Energy + Environment Economics (E3) to conduct an independent study on the feasibility and potential challenges of increasing the RPS mandate. The 5 Utilities also commissioned an independent advisory panel from industry, government, and academia to critique and provide feedback on the assumptions, findings and analysis. The panel issued its own report that reflected its consensus view of the study and findings.

According to the study, the most significant challenge to increasing RPS beyond the 33% by 2020 goal, without changes to the current operation of the system to address intermittency (e.g. increases in storage, demand response, other flexible resources that may prove costly), is over-generation due to a surplus of renewable energy at times when California customers' demand is lower than the available energy supply. Without potentially costly changes in system resources to increase flexibility and system operations protocols to address intermittency, over-generation will occur more often when renewables procurement reaches 33% and will be a significant challenge at higher levels of RPS.

Given the numerous challenges associated with meeting California's low carbon energy needs through policies focused primarily on renewable resources, we believe a more holistic clean energy approach is more appropriate. In a March 2015 Op-ed in the Sacramento Bee[2], several heads of California's energy agencies raised some of these challenges associated with increasing renewables including over-generation and transmission capacity. They stated, "Overall, we must make sure that our investments focus on reducing greenhouse gas emissions, improve reliability and keep costs competitive," and, "more of the same policies will not do the trick." The Joint Utilities could not agree more.

Planning Process

California should take an integrated planning approach to reducing GHG emissions that looks across all sectors and opportunities. Procurement policy should focus on supporting GHG goals. Rather than a number of separate procurement goals and planning activities, we recommend the State develop a framework that supports side-by-side comparison of the costs and benefits of various GHG reduction strategies, including renewables and energy efficiency. This would allow the State to capitalize on the most cost-effective measures that reap the greatest overall GHG reductions.

Modeling

We are pleased to see that the State is involved in a number of analytical efforts to guide thinking around achieving California's long-term GHG reduction goals. We would encourage policymakers to look at all of the available modeling efforts as the results can vary widely as a

[1] Los Angeles Department of Water and Power (LADWP), Pacific Gas and Electric Company (PG&E), Sacramento Municipal Utility District (SMUD), Southern California Edison (SCE), and San Diego Gas and Electric (SDG&E)

[2] http://www.sacbee.com/opinion/op-ed/soapbox/article13939937.html

result of model structure and input assumptions. California should also explore the use of optimization models, which can show how the state can achieve its goals in the most cost-effective manner.

Regional Coordination

The Joint Utilities strongly support the many comments made during the course of the July 9 Symposium on the need for regional coordination to reduce GHG emissions and achieve higher levels of renewable energy penetration. These comments recognized that California's electric sector operates in a market that extends well beyond our borders. This can present both opportunities and challenges. Greater regional coordination on transfers between regions and more frequent scheduling can facilitate greater use of renewables where and when they are needed, whether inside or outside of California. In addition, a regional approach to meeting carbon dioxide emission standards under section 111(d) of the Clean Air Act (or Clean Power Plan) holds the most promise of achieving the U.S. EPA's expected emissions reductions at low cost. Therefore, we encourage the State to pursue efforts to enhance regional coordination in support of our energy and environmental goals.

Transportation Electrification

The electric sector alone cannot deliver the reductions needed to meet the State's long-term GHG reduction goals. All sectors will need to contribute. To the extent the electric sector is needed to support reductions in other sectors (e.g., transportation), we must ensure that policies are in place to facilitate and encourage those interactions. This includes recognizing that the electric sector should receive credit for GHG reductions made through transportation electrification. This will be critical as the State looks to reduce GHG emissions from the transportation sector through increased use of low and zero emission vehicles and will provide a crucial financial incentive for LSEs to facilitate the necessary electric charging infrastructure needed to power these vehicles. Achieving the Governor's ambitious Zero Emission Vehicle goals requires immediate action. The Investor Owned Utilities (IOUs) recent electric vehicle infrastructure filings are a strong first step in the right direction.

Energy Efficiency

The Joint Utilities support the Governor's goal of doubling the efficiency of existing buildings and recognize that the key to achieving the goal will be targeting energy savings in the State's least efficient buildings. However, we do not believe that this goal is achievable without the removal of current policy barriers that sharply limit utilities' ability to target the largest pools of energy waste. To meaningfully contribute to the achievement of the Governor's goals, the Joint Utilities seek the authority to improve building efficiency through programs that provide financial incentives, rebates, technical assistance, and support to customers to increase the energy efficiency of existing buildings based on energy usage reductions, as measured through normalized metered energy consumption. This should include programs that bring buildings up

to- and beyond- Title 24 code levels, as well as for energy saving operational, maintenance, and behavioral activities.

Conclusion

Climate change is a global problem that needs a global solution. California can and should provide leadership to create a GHG-focused policy for the rest of the world to replicate. Thank you for considering our comments on the July 9 Joint Agency Symposium.

Sincerely,

The Joint Utilities