November 14, 2022

The Honorable Steve Sisolak Governor, State of Nevada 101 North Carson Street Carson City, NV 89701

Director Brenda Erdoes Legislative Council Bureau 401 South Carson Street Carson City, NV 89701

Dear Governor Sisolak and Director Erdoes,

The Regional Transmission Coordination Task Force (Task Force) was formed through the signing of Senate Bill 448 during the 81st Nevada Legislative Session. The Task Force was charged with advising the Governor and the Nevada Legislature on topics and policies related to regional electricity transmission in the West, including the costs and benefits of the transmission providers in Nevada joining a regional transmission organization (RTO) to provide access to a wholesale electricity market. Under SB 448, policy recommendations can be formulated by the Task Force to accommodate entrance by transmission providers in this State into an RTO by January 1, 2030.

The Task Force shall, not later than November 30, 2022, and every two years thereafter, submit to the Governor and the Director of the Legislative Counsel Bureau, a report on its activities. This report summarizes the discussions, findings, and activities pursuant to SB 448. Since its inception in December 2021, the Task force has met a total of three times.

Senator Chris Brooks was appointed as Chair of the Task Force, along with the following members:

- Carolyn Barbash, Vice President, Transmission Development and Policy, NV Energy Representative of an electric utility that primarily serves densely populated counties;
- Carolyn Turner, Executive Director, Nevada Rural Electric Association Representative of an organization that represents rural electric cooperatives and municipally owned electric utilities in Nevada;
- Eric Witkoski, Executive Director, Colorado River Commission of Nevada Representative of the Colorado River Commission;
- Luke Papez, Director, Project Development, LS Power Development Representative of a transmission line development company operating in Nevada;
- Richard Perkins, President/CEO, The Perkins Company Representative of the large-scale solar energy industry in Nevada;
- Mona Tierney-Lloyd, Head, U.S. State Public Policy & Institutional Affairs, Enel North America Representative of the geothermal energy industry in Nevada;
- Alise Porto, VP of Sustainability and Strategic Initiatives, Switch Representative of the data center businesses in Nevada;
- John Seeliger, Regional Energy Manager, Nevada Gold Mines Representative of an organization that represents the mining industry in Nevada;

- Erik Hansen, Chief Sustainability Officer, Wynn Resorts Representative of an organization that represents the gaming and resort businesses in Nevada;
- Jeremy Newman, Assistant Business Manager, IBEW Local Union 396 Representative of a labor organization in Nevada;
- Kostan Lathouris, Managing Member, Lathouris Law PLLC Representative of the Nevada Indian Commission;
- David Bobzien, Director of the Office of Energy Representative of the Office of Energy;
- Kris Sanchez, Deputy Director of the Governor's Office of Economic Development Representative of the Office of Economic Development;
- Rebecca Wagner, Self-Employed-Owner/Consultant, Wagner Strategies Representative of the general public;
- Elizabeth Becker, FEMA, Local Hire, Emergency Management Specialist Representative of the general public;
- Leslie Mujica, Executive Director and Chief Marketing Officer, Southern Nevada IBEW and NECA LMCC/Las Vegas Power Professionals – Representative of the general public;
- Assemblywoman Melissa Hardy, Nevada State Assembly Two members of the Assembly, nominated by the Speaker of the Assembly, at least one of whom must be a member of the minority political party;
- Assemblywoman Danielle Monroe-Moreno, Nevada State Assembly Two members of the Assembly, nominated by the Speaker of the Assembly, at least one of whom must be a member of the minority political party;
- Senator Dallas Harris, Nevada State Senate Two members of the Senate, nominated by the Majority Leader of the Senate, at least one of whom must be a member of the minority political party;
- Senator Pete Goicoechea, Nevada State Senate Two members of the Senate, nominated by the Majority Leader of the Senate, at least one of whom must be a member of the minority political party;
- Hayley Williamson, Chair, Public Utilities Commission Non-voting representative of the Public Utilities Commission of Nevada;
- Ernest Figueroa, Nevada State Consumer Advocate, Nevada Attorney General's Office –
 Non-voting representative of the Bureau of Consumer Protection in the Office of the
 Attorney General.

During Task Force meetings, presentations were given by several experts representing the renewable energy industry, utilities, environmental advocates, consumers, businesses, and state regulators on a diversity of issues related to the policy focus areas of the Task Force. Task Force members examined the issues thoroughly and inclusively to gather information for future policy recommendations. All meeting materials including notices and agendas, presentations and meeting minutes have been made available to the public on the Governor's Office of Energy website. The Governor's office of Energy is regularly updating their website with relevant information, studies, and reports on the subject matter, and it can be used as a resource for the Governor, the Nevada Legislature, and the public. Additionally, meetings were live streamed to maintain transparency and provide wide public access.

Meeting of the Regional Transmission Coordination Task Force – April 22, 2022

The Task Force listened to a presentation by Cameron Dyer, Managing Senior Staff Attorney, and Ken Wilson, Senior Water Resources Engineer and Policy Advisor, with Western Resource Advocates entitled "<u>Transmission Overview in Nevada</u>." The presentation focused on transmission basics, advanced transmission technologies, underground transmission, existing high voltage lines in Nevada and an overview of sub-transmission lines in Nevada.

Special focus was given to current grid operations and western interconnection as well as RTOs as a pathway to decarbonization. The presentation highlighted transmission as a component to enhancing the clean energy resources flow and the critical need for multi-state agreements or coordination for a transparent, functional and an economically viable RTO.

Maury Galbraith, Executive Director with the Western Interstate Energy Board presented "Wholesale Electricity Markets 101." An overview of wholesale electricity market models was provided to include the following models: traditional bilateral, energy imbalance, joint dispatch, and restructured.

Four primary functions were discussed:

- 1. ISO Real-Time Market: for security constrained economic dispatch of generation resources.
- 2. ISO Day-Ahead Market: for security constrained economic commitment of generation resources.
- 3. ISO Planning Reserve Margins: for resource adequacy efficient capacity expansion.
- 4. ISO Transmission Planning: for transmission system expansion.

The goals of market expansion were listed as:

- 1. Least-Cost: market dispatch for utility power cost savings.
- 2. Reliability: improved situational awareness for enhanced reliability.
- 3. Decarbonization: leverage system flexibility to reduce curtailment of renewable energy.
- 4. Transparency: improved data and information through consolidation

As closing, an update on current regional efforts was provided:

- 1. California ISO: Extended Day-Ahead Market (EDAM) Initiative
- 2. Southwest Power Pool: Markets+ Initiative
- 3. Western Power Pool: Western Resource Adequacy Program
- 4. Western Market Exploratory Group

The presentation "Current State of Transmission in Nevada and the West" was delivered by Carolyn Barbash, Vice President, Transmission Development and Policy with NV Energy. Ms. Barbash provided a renewable energy overview for the Task Force as well as long-term storage solutions, highlighting NV Energy's utility-scale battery storage in development. An update on emissions reduction showcased there is no NV Energy-owned coal generation serving southern Nevada and newly approved solar plus storage projects will replace the coal fired North Valmy Generating Station by 2025.

An overview of NV Energy's Greenlink Nevada Transmission Project described it as a new renewable energy and electrical infrastructure initiative that will make Nevada a leader in the clean energy economy. It will move Nevada closer to a future powered by 100% renewable energy and reduce Nevada's carbon footprint. Generating \$90 million in economic activity and creating nearly 4,000 good-paying jobs. It will also improve system reliability and transfer capacity within the state and to other states. Lowering energy costs are expected to offset the cost of construction.

Mark Milburn, Senior Vice President of Project Development with LS Power delivered the presentation "Nevada Transmission Overview." An overview of the One Nevada Transmission Line (ON Line) was provided, describing it as the first connection between Nevada Power and Sierra Pacific Power as well as a joint development effort between LS Power and NV Energy. It has resulted in millions of dollars in benefits to NV Energy ratepayers since 2014 due to seasonal energy exchanges and joint dispatch.

Fanny Kidwell, Director of Development with GridLiance/NextEra then presented "NextEra Energy Transmission – GridLiance West." Ms. Kidwell highlighted NextEra's investments in Nevada resulting in positive economic activity and job creating in the state. Some of those benefits include approximately \$1.2 billion total capital investment, \$1.7 million in annual payroll, \$1.4 million in annual land payments, and \$2.6 million in property taxes.

The Task Force then received the final presentation of the day by Jason Smith, President of TransCanyon on the <u>Cross-Tie Transmission Line Project</u>. Mr. Smith discussed cross-tie benefits to include an increase in transmission capacity between PacifiCorp, NV Energy, CAISO and Idaho Power Balancing Areas. It also facilitates export of renewable resources from California and Nevada to diverse load centers throughout the West, thereby increasing regional reliability and improving contingency response during system disturbances caused by weather, fire, or natural disasters.

Chairman Chris Brooks then wrapped up the meeting by sharing the <u>CAISO Transmission Plan</u> as a resource for Task Force members and the public to explore. He then concluded with a preview of the October meeting and the meeting was adjourned.

Meeting of the Regional Transmission Coordination Task Force – October 12, 2022

Steve Johnson, Director of Markets Administration, with Southwest Power Pool (SPP) presented "Market Benefits and Western Energy Services." Mr. Johnson emphasized that SPP operates the grid from a regional perspective. This reduces costs and required energy reserves and increases efficiency resulting in \$2.14 billion in annual savings and benefits. SPP's Integrated Marketplace combines efficient and economic day-ahead, real-time and transmission markets. Its collaborative, stakeholder-driven transmission planning process results in robust infrastructure and have rapidly and reliably integrated renewables. Other benefits include the reduction of CO2 emissions by 21% since 2014, assistance for states to meet renewable goals, provision of alternatives to right-of-way acquisitions and the use of a stakeholder process to create mutually beneficial policies. An overview of the Western Energy Imbalance Service (WEIS) was provided.

The Western Resource Adequacy Program (WRAP) was developed by SPP and WPP. It is currently under a phased-in development process. Its responsibilities include performing loss of load expectation studies and setting the planning reserve margin, calculating the cost of new entry, administering the forward-showing and operational programs, evaluating and determining the qualified capacity contribution of resources and maintaining high reliability and security requirements.

The Task Force received a presentation by Stacey Crowley, Vice President External Affairs, with CAISO who provided an update on "CAISO Market Activities." The presentation focused on transmission planning, current market activities, governance topics and the summer 2022 heat event. Ms. Crowley provided an overview of the 20-year resource and transmission development plan highlighting CAISO's responsibility for identifying and developing solutions to meet future needs of an ISO-managed grid.

She then discussed current market activities, including the Western Energy Imbalance Market (WEIM). Since its launch in 2014, the WEIM has provided: enhanced grid reliability, economic benefits for participants, improved integration of renewable energy resources, improved operational efficiencies and the reduction of over 760,000 metric tons of CO2. Key benefits of a day-ahead market in the West included optimized unit commitment in day ahead timeframe across footprint, operational and capacity benefits, confidence in transfers, improved operational coordination, enhanced tracking and accounting greenhouse gas emissions, and the respecting of state policies.

WEIM governance structure was discussed, as well as stakeholder engagement and shared authority for the Board and the WEIM Governing Body. Key elements include independent WEIM Governing Body selected by stakeholders and confirmed by the Governing Body, Selfgoverning Body of State Regulators with sperate staff, self-governing Regional Issues Forum to discuss relevant issues and independent market expert with direct oversight by the Governing Body.

An update on the California Legislature's ACR 188, sponsored by Assemblyman Chris Holden was provided. ACR 188 passed both legislative chambers on a unanimous, bipartisan vote. It directs CAISO to produce a report that summarizes recent, relevant studies on the impacts of expanded regional electric grid cooperation on California and identifies key issues that will most effectively advance the state's energy and environmental goals, including any available studies that reflect the impact of regionalization on transmission costs and reliability for California ratepayers. The report is to be submitted to the California legislature by February 28, 2023.

A presentation on the Western Resource Adequacy Program was delivered by Ryan Roy, Director of Technology, with Western Power Pool. Mr. Roy described how they are to implement a binding forward showing framework that requires entities to demonstrate they have secured their share of the regional capacity need for the upcoming season. They are also planning to implement a binding operational program that obligates members with calculated surplus to assist participants with a calculated deficit on the hours of highest need. Finally, they are to leverage the binding nature of the operational program, together with modeled supply and load diversity, to safely lower the requirements in the forward showing and help inform resource selection for the region, driving investment savings for members and their end use customers. A program overview was provided, and a review of the draft interoperability principles draft was discussed.

Looking Ahead

The Regional Transmission Coordination Task Force has examined many of the energy issues and implications to better position Nevada for improved regional electricity transmission coordination. The Task Force does not have any specific policy recommendations at this time, but to consider potential future policy recommendations that will accommodate entrance by transmission providers in this State into a regional transmission organization by January 1, 2030, in the coming year the Task Force should consider examining the following issues related to transmission planning/coordination and wholesale market development:

- Desired governance principles for market offerings
- Opportunities for enhanced Nevada participation in regional transmission planning efforts
- Analyses of Nevada load and generation conditions and forecasts in the context of different market scenarios
- GHG accounting issues in support of Nevada's GHG inventory (NRS 445B.380) and carbon reduction goals
- Opportunities and benefits of market regionalization and transmission planning for Nevada ratepayers and communities
- Regular updates on NV Energy's efforts to evaluate RTOs including its participation in the Western Markets Exploratory Group (WMEG)
- IIJA/IRA opportunities for transmission
- Transmission planning processes: NV Energy, Northern Grid, WECC, CAISO
- State-Led Market Study presentation

We look forward to the coming year as we continue our work.

Best Regards,

Members of the Regional Transmission Coordination Task Force

APPENDIX

Below are all studies and resources referenced during Task Force meetings:

- Implications of a regional resource adequacy program on utility integrated resource planning: Study for the Western United States (Berkley Lab)
- Regulation and Markets: Ideas for Solving the Identity Crisis (Wilkinson, Barker, Knauer)
- California ISO 2021-2022 Transmission Plan
- State Led Market Study Technical Report
- State Led Market Study Market & Regulatory Review Report
- Western Flexibility Assessment Report (WIEB)
- Advanced Energy Economy (AEE) Western RTO Economic Impact Study
- AEE Western RTO Economic Impact Study: Nevada Results
- AEE Western RTO Economic Impact Study: Nevada Fact Sheet
- The Nature Conservancy Power of Place-West: High Electrification the Best Path for Meeting Climate and Land Conservation Goals
- CAISO Regional Solutions