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Public Utilities Commission of Nevada
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BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

Joint Application of Nevada Power Company d/b/a)
NV Energy and Sierra Pacific Power Company d/b/a/) Docket No. 22-11032
NV Energy for approval of the fourth amendment)
to its 2021 Joint Integrated Resource Plan)

Public Comments of Advanced Energy United
on Phase I of the Fourth Amendment to the 2021 Joint Integrated Resource Plan

Advanced Energy United (“United”) is pleased to provide the following public comments in response to the Public Utilities Commission of Nevada’s (“Commission”) consideration of NV Energy’s fourth amendment to its 2021 Integrated Resource Plan (“IRP”) proposing new supply-side resources.

Advanced Energy United, formerly Advanced Energy Economy, is a national association of businesses that are making the energy we use secure, clean, and affordable. We work to accelerate the transition to 100% clean energy in the United States. Our membership represents a broad coalition that includes large and small companies working across the energy technology spectrum, including energy efficiency, demand response, solar photovoltaics, solar thermal, wind, storage, electric vehicle manufacturer and charging infrastructure providers, advanced metering infrastructure, transmission and distribution developers, enabling software, and more. It also includes large energy customers looking to meet sustainability goals with access to advanced energy resources.

I. Introduction

United appreciates the need to ensure that reliable energy is provided throughout the energy transition. We also appreciate the challenges that Nevada and the greater West face as extreme weather events – especially extreme heat – become more frequent and make serving summer peak loads especially challenging. However, we remain unconvinced by the proposed plan in this

4th IRP amendment that a new natural gas peaking resource is right for the job and right for Nevada ratepayers.

II. This proposal is not based on a rigorous analysis of the current and expected reliability needs of NV Energy’s system or the broader western energy system.

Specifically:

- 1) By requesting expedited consideration of a major investment in new gas-fired combustion turbines, NV Energy is giving short shrift to a decision with significant implications for the state’s energy, economic, and environmental future – a decision that threatens to lock-in high capital costs and volatile fuel costs from out-of-state markets and to lock-out investment in cleaner, more cost-effective, and more consumer-empowering advanced energy alternatives;
- 2) NV Energy has not conducted a rigorous analysis to determine, let alone demonstrate, whether and how the proposed resources – and other reliable and clean resources – will or could contribute to system reliability; and
- 3) NV Energy has not examined existing and future opportunities to meet system reliability through Western market enhancements, including the Western Resource Adequacy Program, CAISO’s extended day-ahead market, and a full Western Regional Transmission Organization, which it is required by Senate Bill 448 (2021) to join by 2030.

NV Energy has discounted the consideration of more cost-effective and cleaner resources such as demand response and energy efficiency by pointing out that, in NV Energy’s planning, these resources are counted on the demand side of the ledger and not supply.¹ Yet this rebuttal actually calls into question the claim that this IRP amendment provides sufficient analysis to support the approval of the Silverhawk Combustion Turbines (“CTs”). One of the central purposes of a modern IRP is to integrate the analysis of supply and demand, yet in this application the company seeks to only update its supply portfolio. Not only would an updated demand-side

¹ Prepared Rebuttal Testimony of Kimberly Williams at 7

management analysis directly affect the load required to meet reliability goals, it would likely affect the Effective Load Carrying Capacity (“ELCC”), a key determinant of the Planning Reserve Margin (“PRM”) goal itself.

Instead of performing a new probabilistic analysis in its justification for the Silverhawk CTs, NV Energy relies on a simple stack analysis of its ability to meet a 16% PRM. Yet the quantity of resources necessary to meet this PRM is inextricably linked to NV Energy’s Loss of Load Expectation (“LOLE”) and ELCC analyses completed in 2021, analyses performed on assumptions of a substantially different demand scenario and portfolio of resources. Without an updated analysis, the Company is unable to say whether and how Silverhawk CTs will meet system reliability, or indeed whether other, cleaner resources could do so more cost-effectively.

Further, NV Energy proposes to ignore the potential impacts of regional market integration in its application. NV Energy has attempted to answer parties’ requests to analyze the effect of regional market integration by stating that any such market enhancement would still require the Company to show Resource Adequacy for its own systems.² While this is true, one of the primary benefits of regional market integration is the ability to improve the technical and economic access to additional resources for long-term procurement, including clean, renewable resources outside the state. As these resources become more cost-effective to access and integrate for NV Energy, the expected least-cost portfolio will necessarily change.

This limitation in NV Energy’s analysis becomes all the more apparent and important at the longer-term horizon to meeting the state’s 2050 clean energy goals. NV Energy contends that the Silverhawk CTs will continue to be necessary as far out as 2050 to meet peaking energy demand. Yet nowhere has the company analyzed, much less demonstrated, that the high-cost and volatile cost of gas peaking plant will be preferable to accessing high-quality, reliable, and non-correlated clean resources available in an integrated Western market.

III. Demand-side technologies and programs can serve as lower-cost, reliable, and incremental peak demand resources.

² Prepared Rebuttal Testimony of Ryan Atkins

While centralized CTs may provide capacity, they will not support energy resilience or reliability when there are disruptions to gas supply, transmission, or distribution systems, as was the case in Northern Nevada during the New Year's Eve storm. And just days earlier in the Midwest and Eastern states during Winter Storm Elliot, the Midcontinent Independent System Operator lost 23,000 MW of natural gas generation – just as it was needed the most – due to unplanned outages.³ Before approving this gas plant, the Commission may benefit from a more comprehensive look at the predicted types and frequencies of future grid threats to determine what resource characteristics will be most valuable to meet those threats.

For grid disruptions related to severe weather events, distributed energy resources that can island from the larger grid – including vehicles that can send power back to the grid, microgrids, and residential and commercial battery storage systems – can keep critical systems running. And if systems do go down, energy efficiency measures such as home insulation improve passive survivability by keeping residents comfortable and safe in their homes. For extreme heat and cold that creates higher levels of peak demand, energy efficiency, time varying rates, and demand response programs can more cost-effectively manage load. These programs have a track record of success. For example, Texas expanded its industrial demand response program, the Emergency Response Service, after the program reduced demand by 1,000 MW and saved the grid from the brink of outages last summer.⁴ New York City has grown its participation in Consolidated Edison's demand response program after it successfully reduced peak by 115 MW during extreme summer heat.⁵ Not only can these programs be set up and implemented quickly – they also reduce consumer bills *and* avoid the need to spend hundreds of millions of ratepayer dollars on capital costs for a centralized plant meant to run infrequently.

³ *Overview of Winter Storm Elliott December 23, Maximum Generation Event.* Reliability Subcommittee of MISO. January 17, 2023. Available at: <https://cdn.misoenergy.org/20230117%20RSC%20Item%2005%20Winter%20Storm%20Elliott%20Preliminary%20Report627535.pdf>

⁴ *Texas expands industrial demand response program as grid goes to the brink of rolling outages.* Robert Walton. July 15, 2022. Available at <https://www.utilitydive.com/news/texas-expands-industrial-demand-response-program-as-grid-goes-to-the-brink/627358/>

⁵ *New York City expands role in ConEd demand response program amid second week of stifling temperatures.* Robert Walton. July 21, 2022. Available at: <https://www.utilitydive.com/news/new-york-city-coned-demand-response-program-heat-wave/627821/#:~:text=New%20York%20City%20has%20been,115%20MW%2C%20the%20city%20said.>

IV. Conclusion

NV Energy contends that the options for meeting firm ramping capacity needs in the long-term horizon are speculative and therefore not tractable.⁶ Yet it is a truism of analysis and decision-making that uncertainty in the value of a variable does not justify excluding or ignoring the variable. The range of values for the economic, environmental, and security costs of natural gas in the 2050 timeframe are hardly less uncertain. The fact is that the company proposes to lock-in these uncertain and potentially substantial costs now, at the expense of cleaner, cheaper options, based on an inadequate analysis.

For these reasons, United urges the Commission to reject the current proposal in favor of one more reasoned and substantiated, that places demand-side and regional resources on a more equal footing to the Company's preferred reliance on a volatile fossil fuel.

United thanks the Public Utilities Commission of Nevada for the opportunity to provide these public comments.

Respectfully submitted this 15th day of February 2023 by

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***On Behalf of Advanced Energy
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⁶ Prepared Rebuttal Testimony of Kimberly Williams at 11, "As described in the Economic Analysis narrative in this docket, "the firm dispatchable resources are modeled with the characteristics of gas turbines due to the lack of sound data on proven, appropriate low carbon resources."

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