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24-05041

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 NV Energy for approval of their) Docket No. 24-05041
joint 2025-2044 Integrated Resource Plan, for)
the three-year Action Plan period 2025-2027,)
and the Energy Supply Plan period of 2025-)
2027.)**

Direct Testimony, Phase III

of

Emily Walsh

on behalf of

Western Resource Advocates (WRA)

October 18, 2024

1 Politics and Policy Analysis’ and ‘Quantitative Methods’, and a Master of Science in
2 Political Science, respectively. My resume is attached to my testimony as Attachment
3 EW-1.

4 **3. Q: On whose behalf are you testifying in this proceeding?**

5 **A:** I am testifying on behalf of Western Resource Advocates (WRA).

6 **4. Q: Please describe WRA.**

7 **A:** WRA is a nonprofit conservation organization dedicated to protecting the land, air, and
8 water of the West. WRA’s Clean Energy Program works to advance plans and policies
9 that lead to lower cost, lower risk, and cleaner energy resources. In Nevada, WRA,
10 individually and as a member of Nevadans for Clean Affordable Reliable Energy, has
11 participated actively in resource planning and rate case proceedings since 2006. WRA
12 has worked to promote energy efficiency, increase the Company’s renewable energy
13 generation, and decrease our reliance on fossil fuel generation to improve the state’s air
14 quality, and to limit the emissions of greenhouse gases and other pollutants.¹

15 **5. Q: Have you ever testified in front of the Public Utilities Commission of Nevada before?**

16 **A:** Yes, I testified before the Commission in Dockets No. 23-06007, 23-08015, and 24-
17 02026, the most recent General Rate Case application for Nevada Power Company, the
18 Fifth Amendment to the 2021 IRP filed by the Companies, and the most recent General
19 Rate Case application for Sierra Pacific Power Company.

¹ More information about WRA can be found on <http://www.westernresources.org/>.

1 **6. Q: Are you introducing any other witnesses for WRA?**

2 **A:** Yes. Nick Pappas and Derek Stenlik are consultants testifying on behalf of WRA in this
3 docket.

4 **7. Q: Do you have any attachments to file with your testimony?**

5 **A:** Yes. I am sponsoring the following attachments with my testimony:

- 6 • Attachment EW_1: Resume
- 7 • Attachment EW_2: WRA DR 9-02
- 8 • Attachment EW_3: WRA DR 9-06

9 **8. Q: What is the purpose of your testimony?**

10 **A:** The purpose of my testimony is to provide the Commission with high level policy
11 recommendations and evidence related to integrated resource planning in Nevada, and
12 the action plan for the 2024 IRP. I specifically discuss the present state of emissions
13 reductions and NV Energy's pattern of failure in resource planning that has hindered
14 their potential to meet state climate goals. The testimony of Nick Pappas and Derek
15 Stenlik, WRA's other witnesses in this proceeding, will provide WRA's specific
16 technical recommendations and the reasoning behind those recommendations. My
17 testimony is divided into the following sections:

- 18 1. Introduction
- 19 2. Recommendations
- 20 3. Renewable Resource Procurements
- 21 4. Least Cost vs Least Risk
- 22 5. Green House Gas Reductions in Nevada

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SECTION 2

Recommendations

9. Q: Please summarize WRA’s recommendations within the testimony of all three witnesses to the Commission in this case.

A: WRA’s policy recommendations to the Commission are as follows:

1. The Commission should approve NV Energy’s renewables and storage action plan requests from the balanced portfolio while directing the Companies to accelerate clean energy deployment over the long-term planning period.
2. The Commission should find that NV Energy’s planning and procurement process has been insufficient and has resulted in NV Energy no longer being on an emission reduction trajectory that minimizes climate impacts to customers; to remedy this, the Commission should direct NV Energy to take actions to remediate its planning and procurement process to secure cost-effective clean energy for customers.
3. The Commission should direct NVE to provide more substantiation and due diligence regarding the resources and actions necessary to achieve Nevada’s 2050 carbon goal.
4. The Commission should open up an investigatory docket in order to further examine the projected load growth expected over the next decade due to an increase in ‘Major Projects’, namely data centers, as well as programs and tools to manage and minimize the effects of the load growth to they system and emissions reduction progress already achieved by NV Energy.

1 Further technical recommendations for the Commission are contained within my
2 colleagues' testimony.

3 **10. Q: Generally, why are these your recommendations?**

4 **A:** As elaborated on in the testimony of Mr. Pappas and Mr. Stenclik, WRA found
5 problematic inputs and assumptions in the Companies' application. As a result, I am
6 unconvinced that the Companies' analysis and evaluation of all resources is sufficient at
7 this time and that the selected resources, specifically the thermal, emitting resources
8 contained within this application, are in the best interest of Nevadans. However, in both
9 NV Energy's modeling and WRA's independent modeling, described in the testimony of
10 Mr. Pappas and Mr. Stenclik, renewable resources are consistently selected and prove to
11 be in the best interest of customers. WRA recommends the Commission approve the
12 acquisition of the renewable resources proposed in the action plan. Furthermore, we
13 recommend the Commission direct the Companies to undertake near-term actions to
14 develop the aggressive near-term clean energy resources identified as optimal in our and
15 the Companies' modeling, while directing the Companies to return to the Commission
16 with a revised long-term plan achieving deeper reductions aligned with science-based
17 emissions targets. A long-term decarbonization trajectory exposes customers to less risk
18 via reduced fuel reliance and puts the utility back on track towards meeting state
19 emissions reductions goals.

20 In this IRP, the Company projects a marked departure and significant backsliding
21 from the greenhouse gas emissions trajectory associated with the approved 2021 IRP.
22 This has negative implications for Nevada customers, who already face the economic
23 impacts of climate change, the risk of higher costs from volatile fuel prices, and the

1 the same manner as NV Energy proposal in this case. While these are elaborated on in
2 the testimony of my colleagues, they are doubly concerning because they harken to
3 similar issues that were present in various forms throughout the 2021 IRP cycle. The
4 Valmy issues is clearly complex, but the Companies have failed multiple times to
5 provide a sufficient and sound solution that lasts or is unchanged in the next filing. This
6 track record indicates a need for deeper and more through examination of the Valmy
7 CTs to ensure that what the Commission will eventually approve will be a lasting
8 solution and the best resources for Nevada's needs. Thus far, the Companies have failed
9 to competently engage in resource planning in regard to Valmy. This application is
10 another incomplete iteration that ultimately leaves some uncertainty as to if there is a
11 better solution that the Companies have not evaluated.

12 **13. Q: How would you characterize NV Energy's integrated resource planning process over**
13 **the past cycle?**

14 **A:** NV Energy has been engaged in reactive planning rather than proactive planning. The
15 current structure of the IRP process in Nevada enables the Companies to practice this
16 kind of activity, and heavily incentivizes the Companies to only propose resources
17 under 'emergency' circumstances. Given the comparatively small capacity of this
18 application, WRA is concerned that the Companies will come forward in the near future
19 with an Amendment and continue to conduct resource planning in a manner similar to
20 their recent practices.

1 **14. Q: What specific examples would you cite to support your characterization?**

2 **A:** The narrative behind the Silverhawk Peaker expansion contained within the 4th
3 Amendment and the multiple iterations of the Valmy solution are examples of this
4 ‘reactive’ planning in recent years.

5 Both the Silverhawk Peaker and the Valmy repower conversion, and now Valmy
6 additions, are heavily supported by narratives pointing to ‘unknown’ or ‘unexpected’
7 changes in circumstances or load growth that led to reliability concerns. The filing of
8 the 5th Amendment was especially problematic as the filing of the 2024 IRP was less
9 than nine months away and the Companies were already aware of large projected
10 increases to the load forecast. Instead of either filing the IRP early or choosing to file
11 the resources included in the 5th Amendment as part of 2024 IRP application, NV
12 Energy presented another incomplete application that omitted information vital to
13 evaluating the system as a whole, its needs, and the proposed resources to fill those
14 needs. The narrative in the present application now presents an alternative solution that
15 removes the ‘must run’ requirements that dictated resource decisions in the 5th
16 Amendment. Effective, forward-looking resource planning would have identified these
17 needs in a timely fashion and allowed for the identification and procurement of the most
18 cost-effective and appropriate resources to meet those needs.

19 Given the complexity of the Valmy topic and its multiple iterations, WRA finds that
20 the emitting resource additions contained within this application are not sufficiently
21 supported at this time and urges the Commission to require NV Energy to provide more
22 analysis and support of the resource.

1 **15. Q: Why do you characterize the progression of the 2021 IRP cycle as a resource planning**
2 **failure?**

3 **A:** While the full effect of the pandemic on production delays and project completion could
4 not have been wholly expected or planned for, the failure of the Hot Pot, Iron Point,
5 Chuckwalla, Southern Bighorn and Boulder Solar III projects to reach their in-service
6 dates or move forward in their development reflects a disconnect between the resource
7 planning process and commercial ecosystem in which these resources are brought to
8 market. While these resources comprised the vast majority of the 2021 IRP action plan,
9 their significance and urgency were not effectively translated into contract terms or
10 contingency planning to bring them to market.

11 In response to these project cancellations, in the 4th Amendment, the Companies only
12 presented a partial solution for replacing the two Valmy coal units after they retire (a 200
13 MW battery energy storage system that only filled part of the capacity shortfall), and the
14 Commission denied that part of their application. Requesting half a resource, with some
15 unknown half to be proposed to the Commission in the future pending the approval of the
16 initial requested resource, was a failure in resource planning.

17 In the 5th Amendment, the Companies claimed that the conversion and repower of
18 Valmy was necessary to avoid reliability issues. The Companies did not identify these
19 reliability concerns within the 4th Amendment, and there was only a two-month span of
20 time between the final order in the 4th Amendment and the stakeholder briefing for the
21 5th Amendment when the Companies first shared their plans to convert Valmy to run on
22 methane gas.

1 The Companies evaluated a repower scenario for Valmy two years before the 5th
2 Amendment in the 2021 IRP and did not choose it as the preferred plan. If the reliability
3 concerns the Companies cited in the 5th Amendment application were valid, then it is
4 reasonable to expect the concerns could have been identified earlier, when the initial
5 repowering analysis was conducted in the 2021 IRP application. If these reliability
6 concerns were identified and known beforehand, then because they were not adequately
7 addressed in a timely fashion constitutes a failure in the Companies' resource planning
8 process. Now, the state is faced with an alternative solution in the current IRP
9 application which includes additional thermal units to Valmy but removes the must-run
10 scenario. This entire progression has been piecemeal in nature and has never been
11 presented to the Commission as a full picture for a viable path forward for the
12 retirement of Valmy.

13 Lastly, one specific failure in the past IRP cycle involved the load forecast used by
14 the Companies in the 5th Amendment. The forecast originated in the 3rd Amendment and
15 was created using historical data through December 2021; this is only one year more of
16 historical data as compared to the original load forecast used in the 2021 IRP
17 application which included data through December of 2020. In their 5th Amendment
18 narrative, NV Energy acknowledged that load growth was known and coming but chose
19 to use an outdated forecast that would better support their current application' petitions
20 to the Commission. The reliability concerns central to the 5th Amendment warranted a
21 full update to the Companies' inputs, assumptions, load forecast, and modeling that are
22 normally contained within a full IRP. The Companies took an opportunity to file an
23 Amendment before legislation came into effect governing amendments and in doing so,

1 again failed to adequately plan for the short, medium, and long term by relying on
2 outdated information in their justifications of the thermal resource they were proposing.

3 **16. Q: Has WRA and its consultants communicated its concerns to the Companies?**

4 **A:** Yes. WRA has participated in all the stakeholder briefings and meetings related to the
5 2024 IRP as well as participated in all IRP reform investigatory dockets and workshops
6 over the past cycle. Our experts, myself included, have reached out to the Companies
7 numerous times in an effort to collaborate and come to understandings with NV Energy
8 that could lead us to support the present application. While the Companies had
9 productive initial meetings with WRA, the lack of a substantive stakeholder
10 engagement framework limits the ability of one-off meetings to meaningfully influence
11 the planning process.

12 **17. Q: Do you think many of the issues included in your testimony and the technical aspects**
13 **covered in Mr. Pappas' and Mr. Stenclik's testimonies could have been resolved or at**
14 **least reduced if there were a robust, collaborative pre-filing stakeholder process**
15 **incorporated into the IRP?**

16 **A:** Yes, as referenced by Mr. Stenclik and Mr. Pappas in their own testimonies, a robust pre-
17 filing stakeholder process where concerns, specifically those of a technical nature, could
18 be resolved *as the application is being constructed* could have minimized the number of
19 our recommendations in this docket and led to a better application on the part of NV
20 Energy.

1 **18. Q. What is your recommendation for remedying the technical flaws in NV Energy’s**
2 **application?**

3 A: I recommend the Commission direct the Companies to remedy the technical errors in the
4 modeling underlying this application, as described in detail in Mr. Pappas’ testimony,
5 prior to approving the Valmy CTs. Making these corrections will assure the
6 Commission and customers that the Companies are seeking approval for – and
7 acquiring – the most cost-effective resources.

8 **19. 18. Q. Do any of the portfolios WRA witness Mr. Stenlik modeled meet long term**
9 **carbon emission goals?**

10 A. Yes. The portfolios have different emission trajectories and different costs, but show that
11 NVE can reduce emissions significantly in the long term. WRA recommends the
12 Commission direct NVE to evaluate these portfolios more comprehensively, particularly
13 as it relates to emerging or long-lead time resources such as geothermal. As I discuss in
14 the next section, a more diverse portfolio of resources can reduce risk for customers.

15 **20. Q: Has WRA changed its position on aiming to reduce carbon emissions 80% by 2030?**

16 A: No. Scientific consensus underpins the need for electric utilities to reduce emissions
17 80% below 2005 levels by 2030. In Nevada, however, the resource planning and
18 procurement failures have made achieving this level of reductions more expensive and
19 considerably more difficult. As such, WRA recognizes that returning NV Energy to a
20 path of science-based emissions reductions is paramount but must also be realistic. This
21 IRP represents an opportunity to prevent additional backsliding and reinitiate and
22 accelerate progress toward emission reduction goals.
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1 services.² In NVE's IRP, these costs are captured in the Present Worth of Societal
2 Costs. While these costs may seem abstract, the impacts of climate change also manifest
3 as real costs to ratepayers. For example, NVE recently proposed a \$373 million Natural
4 Disaster Protection Plan, much of which is focused on mitigating the impacts of
5 wildfires; the Commission approved most of the proposed plan.³ Moreover, in that
6 proceeding, NV Energy itself argued that severe weather events such as heat waves
7 threaten reliable electricity supply to customers.

8 **24. Q: The Companies characterize the preferred plan as the 'least cost' portfolio. Would**
9 **you characterize the preferred plan as the 'least risk' option?**

10 **A:** Risk is a complex question. While the Balanced Plan reflects lower cost than more
11 ambitious alternatives, the Balanced Plan retains higher exposure to fuel and market
12 purchase prices than alternatives, extenuating the potential circumstances that exposed
13 many Nevadans to rate shock in the last IRP cycle. Analyzing the Balanced Plan against
14 the portfolios generated by WRA's project team, the Balanced Plan contains higher fuel
15 price exposure. When accounting for the errant capital expenditure assumptions for
16 clean energy used in the Companies modeling, the cost differential between cases
17 shrinks significantly. Utilizing the higher fuel cost assumption brings its cost in line
18 with the cost of the *Emissions Glide Path* scenario provided by WRA, which achieves
19 significantly higher cumulative emissions reductions through 2050.

² EPA, The Social Cost of Carbon, *found at:* https://19january2017snapshot.epa.gov/climatechange/social-cost-carbon_.html.

³ Docket No. 23-03003.

1 **25. Q: Is it possible that the Preferred Plan may end up costing Nevadans more than**
2 **alternative portfolios?**

3 **A:** Yes. As noted in Mr. Pappas' testimony, the high-end fuel cost estimate provided by the
4 Companies does not reflect the potential for a sudden, structural increase in prices in the
5 near term, which would significantly impact customer costs. Incorporating a more
6 realistic high-end fuel price scenario would also drive-up market purchase costs and
7 would increase the cost of the Balanced Portfolio over WRA's Emissions Glide Path
8 Scenario.

9 **26. Q: Does the Commission have the discretion to consider fuel price risk and costs**
10 **associated with GHG emission reductions?**

11 **A:** Yes, while I am not a lawyer, the statutes governing the review of IRP applications includes
12 consideration of whether a scenario of resources can increase carbon-free energy to meet
13 state GHG emission reduction goals⁴, economic and environmental benefits associated
14 with resources⁵, and whether resource proposals are diverse and reduce customer
15 exposure to fuel price volatility and carbon costs.⁶ This affords the Commissions the
16 discretion to consider risks derived from and overreliance on a volatile, fuel-based
17 resource and GHG emission increases.

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⁴ NRS 704.741(4)(b)(4).

⁵ NRS 704.746(4)(c).

⁶ NRS 704.746(5)(e).

1 **28. Q: Can you elaborate on the importance of cumulative emission reductions in**
2 **combatting climate change?**

3 **A:** Because CO₂ is a long-lasting GHG, persisting in the atmosphere for hundreds to
4 thousands of years, the magnitude of global warming is determined by cumulative
5 emissions. If global emissions are not steadily reduced between now and 2030, deeper
6 reductions will be required between 2030 and 2050, and there is a greater chance that
7 global temperatures overshoot 1.5°C. This means that an action or investment that
8 reduces emissions earlier in time provides greater benefit than the same investment
9 made later in time. Using an example relevant to electric resource planning, generally, if
10 construction of a solar facility is accelerated and begins operations in 2024 instead of
11 2029, it could provide five additional years of avoided emissions on a utility's system;
12 while the utility's annual emissions in 2030 are equivalent, the cumulative emissions
13 over the period from 2024 to 2030 would be lower. The Commission's decision in this
14 case will best serve state policy goals and utility customers if it incorporates
15 consideration of cumulative emissions in the near term. The Companies have already
16 lost out on some avoided emissions that were planned to occur in this decade due to the
17 delay and cancellation of the Iron Point, Hot Pot, Chuckwalla, Southern Bighorn and
18 Boulder Solar III projects, all of which were scheduled to be in operation by the end of
19 this year⁸, and retirement without fuel conversion of North Valmy Generation Station
20 (Valmy).

⁸ In total these five projects were to supply 1,228 MW solar, 853 MW BESS and 3.8 million MWh of annual renewable energy to Nevada customers. While Boulder Solar III has returned in this IRP, its projected date of completion is 6/30/27 as compared to 12/31/23 in the terminated PPA.

1 From the perspective of reducing cumulative GHG emissions, making steady
2 progress toward 2030 emission reductions is equally – if not more – important than
3 meeting a 2030 goal itself. Extending the life in service of extant thermal, emitting
4 resources as in the 4th and 5th Amendments to the 2021 IRP without substantially
5 reducing operation at those resource, or procuring new emitting resources creates
6 increased cumulative emissions and requires further emissions reductions in the future
7 that are not presently required to meet the levels to keep global temperatures below
8 1.5°C.

9 **29. Q: Please describe the current statutory landscape regarding greenhouse gas emissions**
10 **and reductions in Nevada.**

11 **A:** As stated by NRS 445B.380, Nevada has current state- and economy-wide emissions
12 reductions goals of:

- 13 • 28% reduction from 2005 levels in 2025
- 14 • 45% reduction from 2005 levels in 2030
- 15 • Zero or ‘near zero’ in 2050

16 Nevada also led the nation as one of the first states to establish a renewable portfolio
17 standard (“RPS”) in 1997. Since then, the Nevada Legislature has amended and
18 strengthened the RPS on several occasions, with the most recent amendment occurring
19 during the 2019 Legislative Session through SB 358, which requires 50% of electricity
20 sold in Nevada to originate from renewable energy sources by 2030.⁹ While the
21 purpose of Nevada’s RPS is the expansion of renewable electricity use statewide in

⁹ Nevada Department of Environmental Protection. (2022). Nevada Statewide Greenhouse Gas Emissions Inventory and Projections, 1990-2042. https://ndep.nv.gov/uploads/air-pollutants-docs/ghg_report_2022.pdf.

1 Nevada, the secondary benefit has been a significant reduction in GHG emissions from
2 the electricity generation sector through expanded production of renewable electricity in
3 Nevada.¹⁰

4 **30. Q: What is the most recent evaluation of Nevada’s progress in meeting its statutory**
5 **goals?**

6 **A:** Last December, the Nevada Department of Environmental Protection (NDEP) published
7 the latest version of an annual report on greenhouse gases in the state, the *Nevada*
8 *Statewide Greenhouse Gas Emissions Inventory and Projections, 1990-2043*. This
9 report is filed by NDEP in accordance with NRS 445B.380 and covers both the actual
10 and projected emissions in Nevada yearly, as well as examining their origins and
11 projections going into the future.

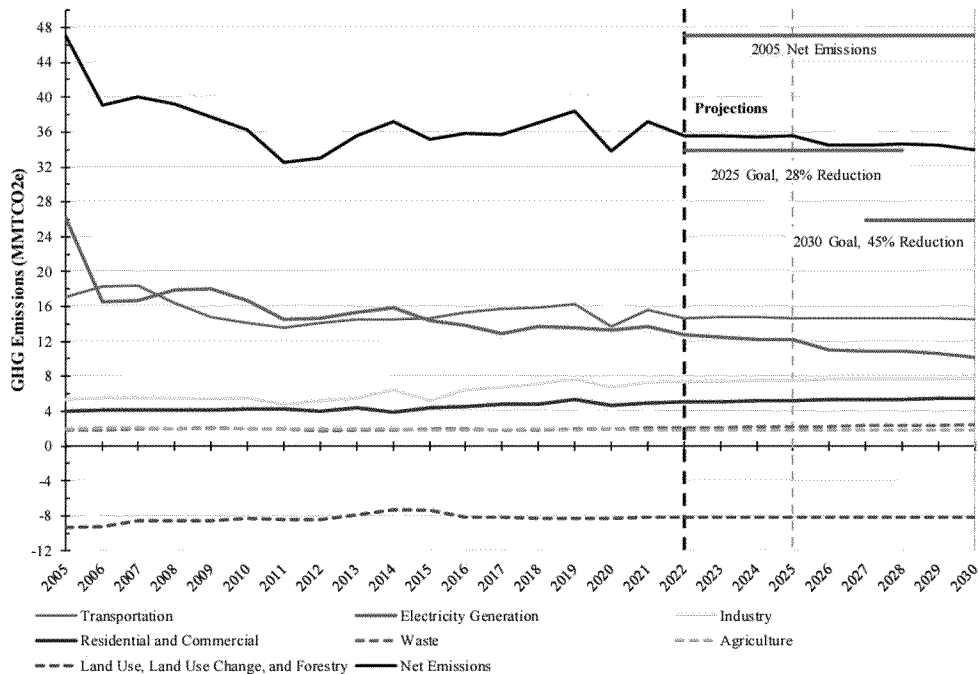
12 **31. Q: Is the state on track to meet its emission reductions target according to the findings**
13 **in this report?**

14 **A:** According to the report, which evaluated current policies and best available data,
15 Nevada is not on track to meet these targets. The state is anticipated to reduce economy-
16 wide GHG emissions in 2025 by 24.5% below 2005 levels, and by 27.8% below 2005
17 levels in 2030. Both expected reduction levels fall short of the NRS 445B.380 goals:
18 3.5% below the 2025 target of 28%, and 17.2% short of the 2030 target of 45%,
19 respectively. The graph included below (EW-1) from Figure 2-7 in the report shows the
20 projected total emissions as well as the projected emissions by sector from 2005-2030.

¹⁰ Renewable electricity use and production are not synonymous.

Nevada Statewide Greenhouse Gas Inventory and Projections, 1990 to 2043
State of Nevada Greenhouse Gas Emissions

Figure 2-7: Nevada Historical and Projected Net GHG Emissions and Emissions by Sector, 2005-2030, with Updated Projections Beginning in 2022 and Comparison to NRS 445B.380's 2025 and 2030 Goals



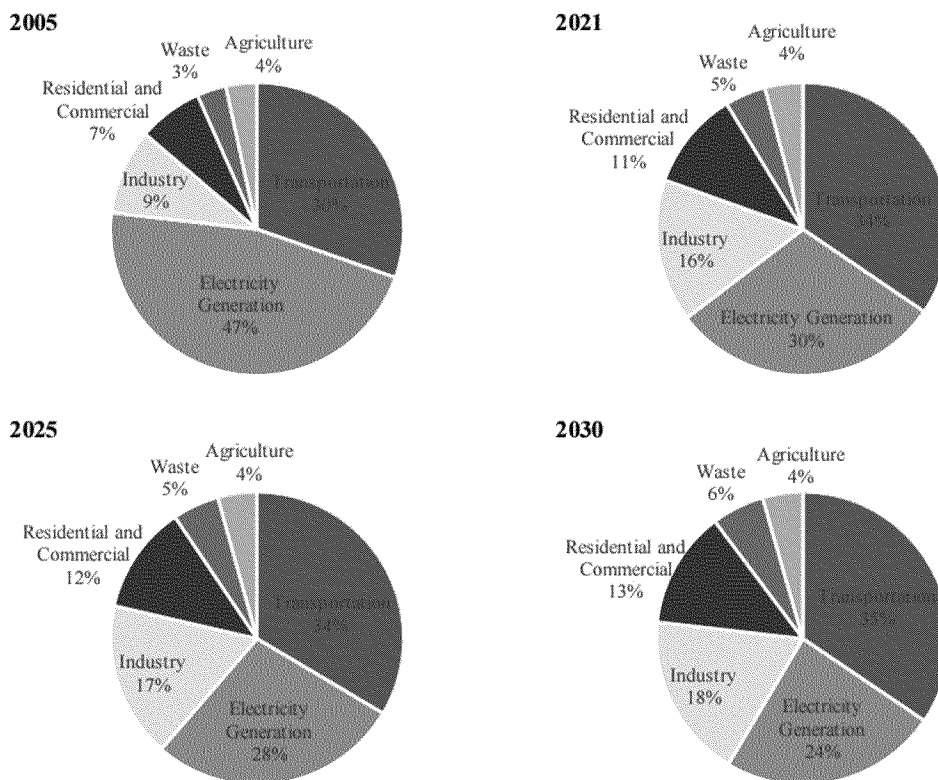
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2 **32. Q: What percentage of gross greenhouse gas emissions are attributed directly to**
3 **electricity generation in the state according to the data for the most recent year available**
4 **and projected for the year 2025 and 2030?**

5 **A:** The most recent data year available was 2021, where electricity generation accounted
6 for a relative contribution of 30% for Nevada’s gross greenhouse gas emissions. The
7 report projected that relative contribution to fall to 28% in 2025 and 24% in 2030.
8 Figure 2-6 from the report (included below as EW-2) illustrates the comparative share
9 of GHG emissions by sector since 2005 at significant marker years.

Nevada Statewide Greenhouse Gas Inventory and Projections, 1990 to 2043
State of Nevada Greenhouse Gas Emissions

Figure 2-6: Relative Contributions of Nevada’s Gross GHG Emissions by Sector, 2005, 2021, 2025, and 2030



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33. Q: Are there any events or changes in trends since the last NDEP report was published that will increase or decrease the expected emissions levels identified?

A: The report did not include the transition of the North Valmy Generating Station’s (“Valmy”) fuel source from coal to methane gas, let alone further conversions from methane gas to hydrogen. The report concluded that emissions from the electricity generation sector would decrease through 2031 due to the retirement of the North Valmy Generating Station, which at the time of publishing was projected for retirement in 2025 based on the 2021 IRP. The increased Renewable Portfolio Standard (RPS)

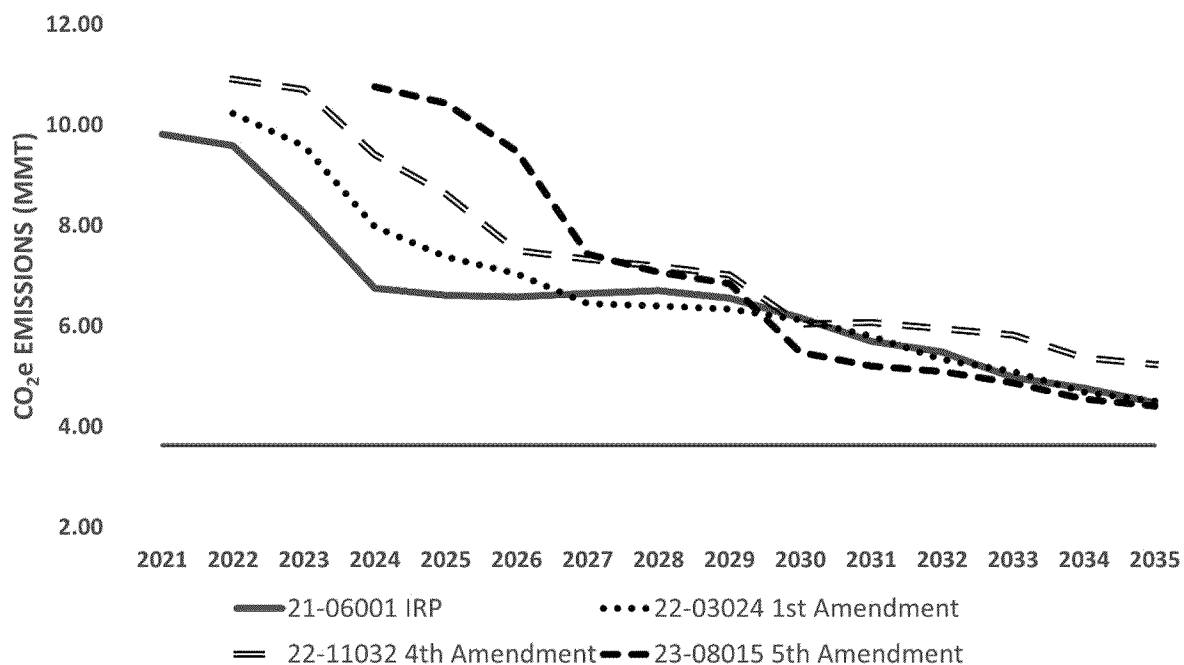
1 established by SB358 (2019) was also listed as a driver of the continued reductions
2 projected.

3 The report did note that due to the extension of depreciation dates for several
4 generating facilities, emissions from the electricity generation sector would become static
5 between 2030 and 2043. Due to Valmy's fuel conversion instead of retirement, the
6 expected emission reductions from this retirement will not be realized. Furthermore,
7 while the report noted that emissions from the residential, commercial, and waste sectors
8 are expected to continue to increase, driven by population and economic growth, the
9 planned development of multiple large data centers and their projected electricity usage
10 was not captured in the report.

11 **34. Q: Can you please provide a summary of how the expected emissions profile for NV**
12 **Energy has changed since the 2021 IRP application?**

13 **A:** I created the chart below (EW-3) using Excel files provided by NV Energy in support of
14 NERA's projected emissions for the Companies, which were included as part of the
15 applications in Docket Nos. 21-06001, 22-03024, and 22-11032, (the 2021 IRP
16 application and the first and fourth Amendments) as well as the current docket. I
17 included a line representing an 80% CO2 emissions reduction compared to a 2005
18 baseline.

NV ENERGY - PROJECTED CO₂e (MMT) 2021 IRP and 1st, 4th, and 5th Amendment Preferred Cases



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The Companies’ expected emissions largely follow the same shape across the cases over the past three years, which indicates their long-term plan for expected emissions has not necessarily changed; however, with each subsequent proceeding emissions reductions have been delayed. With these delays, the people of Nevada are losing out on the benefits from avoided emissions that the Companies could have secured in the near term. To illustrate this point: the Companies’ 5th Amendment estimate for emission levels in 2024 was almost three million metric tons higher than their projected emissions presented in the 2021 IRP. According to the Companies’ own emissions projections from the 5th Amendment, they would not reach the emissions levels they

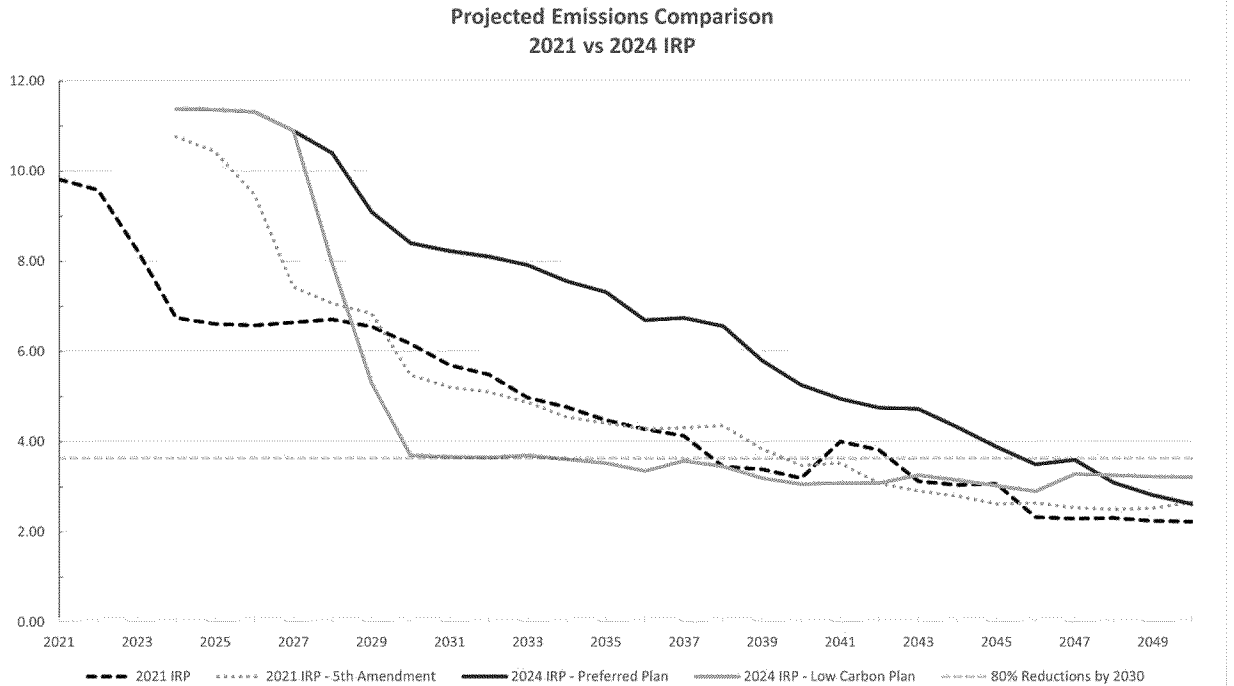
1 expected to achieve in 2024 until almost 2030. We see the effects of this loss of
2 progress over time specifically around 2028-2029 in the 5th Amendment.

3 Additionally, according to NVE's modeling in this proceeding and the 2021 IRP
4 amendments, NV Energy will not achieve 80% emission reductions (as compared to
5 2005 levels) by 2030, the reductions needed in the electric sector to limit global
6 temperature increases to 1.5°C. Under the Fifth Amendment, NV Energy would not
7 achieve an 80% reduction until 2039. The Companies have not achieved their expected
8 emission reductions over the course of the last triennial IRP cycle and have instead been
9 backsliding, planning to emit larger amounts of greenhouse gases. This trend is
10 problematic for the state's achievement of its GHG emissions reduction goals, as the
11 utility's emissions reduction plans are a critical component of state emissions reductions
12 efforts.

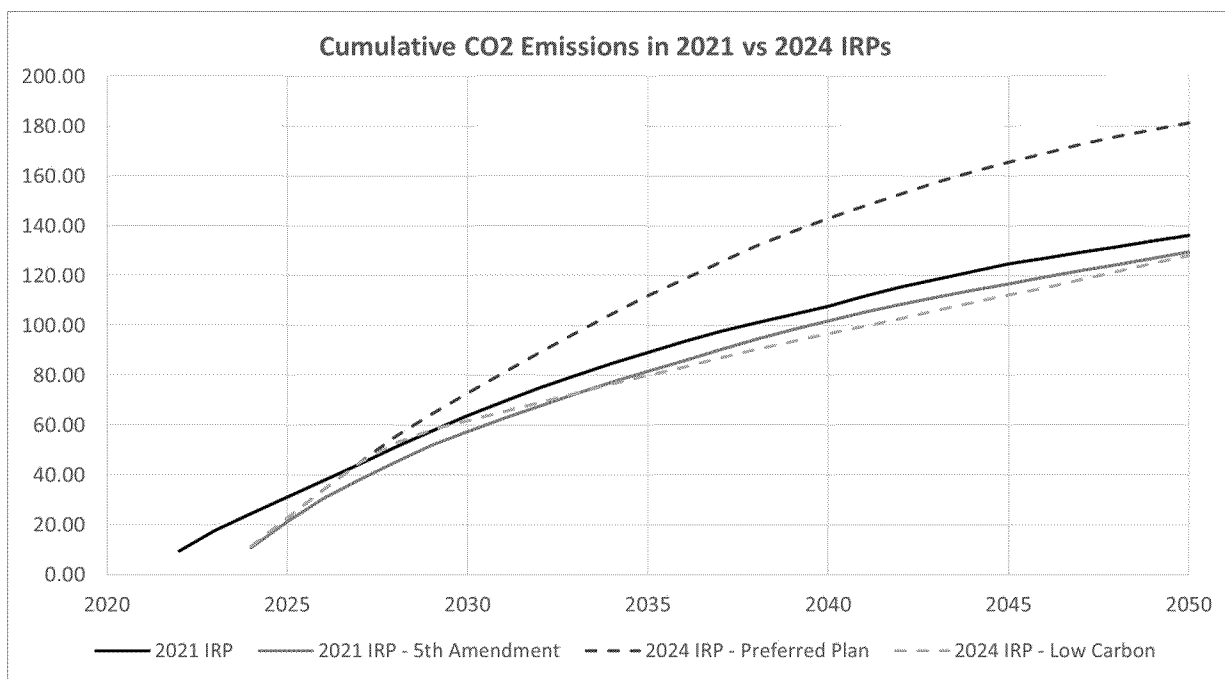
13 **35. Q: What are the changes for the emissions projections for Companies' preferred plan**
14 **in this docket compared to the emissions profile and projections the Companies'**
15 **presented as part of their application in Docket 23-08015 (the Fifth Amendment to the**
16 **2021 IRP)?**

17 **A:** In the nine months between the filing of the 5th Amendment and the 2024 IRP, NV
18 Energy's projected emissions for 2024 have risen by over 500,000 tons of CO₂e.
19 Furthermore, under the Preferred Plan, NVE projects it will take until 2028 to reach
20 emissions levels that the Companies projected they would achieve by 2024 in the 5th
21 Amendment. Furthermore, in this application, the Companies have delayed the
22 projected date which they would meet an 80% carbon reduction to the year 2046, far

1 beyond the time needed to minimize climate impacts. EW-4 compares the preferred and
 2 low carbon plans from this application to the 5th Amendment and 2021 IRP.



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 4 Furthermore, as illustrated in EW-5 below, the preferred plan the Company is requesting
 5 approval for in this application would yield a large increase in cumulative emissions if
 6 approved and mark a large departure from projected cumulative emissions that have
 7 remained largely uniform over the past planning cycle.



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36. Q: You have discussed NV Energy’s backsliding, which has resulted from failed renewable and storage projects. Going forward, are there other factors that are contributing to NV Energy’s higher cumulative emissions, compared to applications in the 2021 IRP cycle?

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A: Yes. One critical factor driving significant increases in emissions is NV Energy’s

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forecast for load growth. NV Energy is forecasting dramatic increases in electricity

8

demand over the next decade. Relative to the load forecast projections in the 3rd

9

Amendment, which were used through the 5th Amendment, the Companies are

10

forecasting a 31% increase in load in 2030, and a 54% increase in load in 2035. The

11

load growth is being driven primarily by forecasts in Sierra Pacific’s service area.

12

37. Q: Can you describe what is driving this unprecedented load growth?

13

A: Yes. The increases in load growth in Sierra Pacific’s service territory are being driven

14

primarily by forecast load from “Major Projects”, which appear to primarily be data

1 centers. As explained by NV Energy, this component of the load forecast for both NPC
2 and SPPC looked at 39 bundled-service manufacturing, mining and data center projects
3 that have requested approximately 7,600 MW of capacity additions, with nearly 6,500
4 MW at SPPC and 1,180 MW at NPC by 2033. Twelve of these 39 projects are bundled-
5 service high-load factor data center projects who requested 5,900 MW of capacity
6 alone.¹¹

7 On an energy basis, the data centers in SPPC's service territory account for 79% of
8 the increase in Major Projects MWh sales between 2023 and 2030, and 86% of the
9 increase in Major Projects MWh sales between 2023 and 2035.¹² For reference, over the
10 next decade, the projected load for Major Projects in SPPC's service territory will be
11 2.5–3.5 times greater than the amount of energy used by residential customers¹³, and
12 roughly ten times the amount used by EV charging.¹⁴

13 **38. Q: How do these new Major Project loads pose a risk to NV Energy's customers and**
14 **Nevadans more broadly?**

15 **A:** These new loads appear to be a driving factor for NV Energy's higher cumulative
16 emissions going forward. Compared with the Companies' Repower Minimum case
17 presented in the 5th Amendment proceeding, NV Energy's preferred plan in this
18 proceeding includes an additional 3,000 GWh of generation from methane gas plants in
19 2026, rising to 7,000 – 8,000 GWh of incremental, additional generation from natural
20 gas plants per year over the 2030 – 2035 period. As I described earlier in my testimony,

¹¹ Docket 24-05041, Direct Testimony of Pollard, Volume 2, pg. 139 of 363.

¹² Response to Information Request WRA 9-06, included as Attachment EW 3.

¹³ Response to Information Request WRA 9-02, included as Attachment EW 2.

¹⁴ NV Energy's Public Workpapers – Load Forecast, SPPC Monthly Summaries, Mo_Grp_Summary.

1 increasing greenhouse gas emissions further contributes to climate change, which
2 presents very real costs and risks to customers.

3 **39. Q: What is your recommendation related to these new large loads?**

4 **A:** I have two recommendations. First, as I have stated throughout this testimony, the
5 Commission should direct the Companies to continue investing in renewable resources,
6 regardless of this new load forecast, consistent with achieving long-term greenhouse gas
7 emission reductions. Second, as these new large loads are an emerging issue, I
8 recommend the Commission open an investigatory docket centered on this topic. The
9 investigation could cover best practices for energy efficiency and demand response for
10 large loads, forecasting load itself, rate design for “Major Projects”, and other issues
11 related to data centers.

12 **40. Q: Given the backsliding and project delays that have occurred over the past IRP cycle,**
13 **are you concerned about the Companies’ ability to meet the emission reductions forecast**
14 **in this application?**

15 **A:** Yes. Without significant direction from the Commission, emissions reductions from
16 energy generation are unlikely to be realized in Nevada. This will harm customers not
17 only through societal and environmental outcomes associated with higher cumulative
18 emissions but also through exposure to highly variable fuel prices. An adjusted low-
19 carbon scenario is the only portfolio that will balance reliability, customer exposure to
20 high fuel costs, and stop NV Energy from backsliding further on carbon emission
21 reductions, realigning the state’s largest utility with the policy and goals encapsulated
22 within statute.

1 **41. Q: Does this conclude your testimony?**

2 **A:** Yes, this concludes my testimony.

Attachment EW-1

Relevant Employment Experience

Nevada Clean Energy Policy Analyst/Advisor, Western Resource Advocates
March 2023- Present

Carson City, Nevada

WRA is a regional nonprofit advocacy organization fighting climate change and its impacts to sustain the environment, economy, and people of the West. WRA's on-the-ground work advances clean energy, protects air, land, water, and wildlife. As a Clean Energy Policy Analyst, I am involved in developing and advancing equitable legislative, administrative, and local policy solutions that move the region toward a clean energy economy and address climate change specifically in Nevada.

- Preparing expert witness testimony, comments, and discovery in regulatory proceedings, including integrated resource planning, rate cases, and other formal or informal processes.
 - Assist in negotiating and drafting complex settlement agreements and developing WRA positions for those agreements.
- Assisting in developing and advocating for equitable policies, mechanisms, and organizational positions that reduce the environmental impact of electricity and natural gas use, spur a rapid transition to a clean energy economy, and address climate change in the Interior West.
 - Advocating for WRA positions in regulatory, legislative, and other policy forums, including local governments.
- Monitoring and analyzing relevant local, state, and federal policy developments.
 - Along with WRA's other state staff, work with the region's electric and natural gas utilities, the business community, consumer advocates, the environmental community, and other stakeholders to advance clean energy and climate solutions.

Prior Testimony Before Nevada Public Utilities Commissions; PUCN Docket Nos.: 23-06007 and 23-08015.

Policy Associate, Pinyon Public Affairs
February 2021- August 2022

Reno, Nevada

Pinyon Public Affairs is a boutique government affairs firm specializing in the natural resource and transportation policy areas. The clients I worked with ranged from large scale solar developers and electric vehicle manufacturers, to both local and national nongovernmental organizations which had an interest in securing large investments from the state in the energy, sustainability, and transmission sectors.

- Acting as the primary informational resource for each of the three partners and their respective clients.
 - Serving as the in-house policy expert on public policies such as the transportation and energy investment sections of the American Rescue Plan and Infrastructure Act and the Infrastructure Investment and Jobs Act, Alternative Fuels Corridors, and Electric Vehicle Tax Incentives.
- Researching, analyzing, and tracking policy, regulations, and issues related to Pinyon's clients' projects, interests, and overall missions. Providing thorough, comprehensive analysis and evaluation of research conducted; creating products for clients and giving recommendations as to future actions and direction.
 - Developing and distributing legislative or regulatory briefings, public comments, fact sheets, and support letters to clients, policymakers, or the wider public.
- Participating in bill presentations and speaking as an expert witness before Legislative Committees.

Formal and Continuing Education

New Mexico State University

Albuquerque, New Mexico

May 2023, Center for Public Utilities

“The Basics” Practical Regulatory Training for the Electric Industry

University of Konstanz

Konstanz, Germany

University of Gothenburg

Gothenburg, Sweden

October 2018- April 2021, Dual Degree Program

Master of Arts; Politics and Public Administration, University of Konstanz

Specialization in ‘Comparative Politics and Policy Analysis’ & ‘Quantitative Methods’

Master of Science; Political Science, University of Gothenburg

Courses of Note: “Statistical Modeling and Inference in Quantitative Research”, “Comparative Politics and Policy Analysis”, “Public Management and Administration”, “Data Analysis with R”, “American Public Policy”, “Python Data Scraping”

University of Nevada, Reno

Reno, Nevada

August 2014- May 2018

Bachelor of Arts; Majors in Political Science and International Affairs, Minor in Mathematics

Attachment EW-2

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 REQUEST DATE: 09-09-2024

REQUEST NO: WRA 9-02 KEYWORD: public workpapers load
forecast MWh system
residential major projects

REQUESTER: Holman RESPONDER: Potts, Kelly (NV Energy)

REQUEST:

Reference: Public Workpapers – Load Forecast , SPPC Monthly Summaries,
Mo_Grp_Summary

Question: The referenced load forecast workpaper shows the following annual MWh for
System, Residential, and Major Projects for 2023, 2030 and 2035:

System Residential Major Projects
2023 9,564,355 2,756,071 1,558,643
2030 16,804,925 3,227,743 8,163,760
2035 16,804,925 3,594,402 12,448,558

(a) Is it correct to conclude from these numbers that the forecast increases in Major
Projects sales account for 91% of the total forecast increase in annual System
MWh sales between 2023 and 2030, and for 90% of the total forecast increase in
annual System MWh sales between 2023 and 2035?

(b) If the answer to (a) is no, please provide an explanation.

(c) Is it correct to conclude from these numbers that, by 2030, NV Energy is
forecasting that the identified Major Projects will be consuming 2.53 times the
amount of electricity used by all of SPPC's Residential customers, and, by 2035,
3.46 times the amount of electricity used by all of SPPC's Residential customers?

(d) If the answer to (c) is no, please provide an explanation.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

(a) Yes this is correct. However, it should be noted that in the question the value of 16,804,925 for 2035 was given instead of 21,649,684 as provided in the referenced workpaper.

(b) Please see the response to item a).

(c) These ratios are correct.

(d) Please see the response to item c).

Attachment EW-3

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 REQUEST DATE: 09-09-2024

REQUEST NO: WRA 9-06 KEYWORD: public workpapers load
forecast major projects
data center MWh sales

REQUESTER: Holman RESPONDER: Potts, Kelly (NV Energy)

REQUEST:

Reference: Public Workpapers – Load Forecast, Public Workpapers,
SPPC_MP_Forecast_09_2023, Annual Summary

Question: The referenced load forecast workpaper shows the following breakout of Major Project Adjusted Annual kWh sales for Data Center, Mine and Manufacturing loads for 2023, 2030 and 2035:

| Year | SPPC | Data | Mine | Manufacturing |
|------|---------------|----------------|-------------|---------------|
| 2023 | 1,560,497,590 | 547,482,099 | 277,202,826 | 735,812,666 |
| 2030 | 8,537,714,797 | 6,051,131,224 | 340,022,671 | 2,146,560,901 |
| 2035 | 8,537,714,797 | 10,615,364,544 | 340,033,046 | 2,366,230,444 |

(a) Is it correct to conclude from these numbers that the forecast increases in Data Center sales account for 79% of the total forecast increase in annual Major Projects MWh sales between 2023 and 2030, and for 86%% of the total forecast increase in annual Major Projects MWh sales between 2023 and 2035?

(b) If the answer to (a) is no, please provide an explanation.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:


(a) Yes, this is correct. However, it should be noted that in the question the value of 8,537,714,797 for 2035 was given instead of 13,321,628,035 as provided in the referenced workpaper.

(b) Please refer to response (a).

AFFIRMATION

Pursuant to the requirements of NRS 53.045 and NAC 703.710, Emily Walsh states that she is the person identified in the foregoing prepared testimony and/or exhibits; that such testimony and/or exhibits were prepared by or under the direction of said person; that the answers and/or information appearing therein are true to the best of her knowledge and belief; and that if asked the questions appearing therein, her answers thereto would, under oath, be the same.

I declare under penalty of perjury that the foregoing is true and correct.

A handwritten signature in black ink that reads "Emily Walsh". The signature is written in a cursive style with a horizontal line extending to the right from the end of the name.

Date: October 18, 2024

Witness Signature

1 CERTIFICATE OF MAILING

2 Docket No. 24-05041

3 I hereby certify that I have on this date served the foregoing document upon all parties of
4 record in this proceeding by electronic mail to the recipient's current electronic mail address,
5 facsimile, or mailing a true copy thereof, properly addressed with postage prepaid or forwarded
6 as indicated below to:

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2 Completed By:

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4 Regina M. Nichols
5 Western Resource Advocates
6 Program and Legal Assistant
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