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24-05041

Public Utilities Commission of Nevada
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PUBLIC UTILITIES COMMISSION OF NEVADA

Docket No. 24-05041

Phase III: Supply Side Plan, et al.

**Prepared Direct Testimony of
Adam E. Danise, P.E., on behalf of the
Regulatory Operations Staff**

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6 **1. Q. Please state your name, occupation, and business address.**

7 A. My name is Adam E. Danise. I am a Regulatory Engineer for the Regulatory
8 Operations Staff (“Staff”) of the Public Utilities Commission of Nevada
9 (“Commission”). My business address is 9075 West Diablo Drive, Suite 250, Las
10 Vegas, Nevada 89148.

11 **2. Q. Does Attachment AED-1 summarize your professional background?**

12 A. Yes, it does.

13 **3. Q. What is the purpose of your testimony?**

14 A. The purpose of my testimony is to provide Staff’s recommendations regarding the
15 Joint Application of Nevada Power Company d/b/a NV Energy (“Nevada Power”) and
16 Sierra Pacific Power Company d/b/a NV Energy (“Sierra” and together with Nevada
17 Power, “NV Energy”) for approval of their joint 2025-2044 integrated resource plan
18 (“IRP”) for the three-year Action Plan period 2025-2027, and the Energy Supply Plan
19 (“ESP”) period of 2025-2027 (referred to as the “2024 Joint IRP Application”).
20 Specifically, I address NV Energy’s Greenlink Nevada Project, proposed annual limits
21 on the total amount of energy and capacity that eligible Nevada Revised Statutes
22 (“NRS”) Chapter 704B customers may purchase from providers of new electric
23 resources during the Action Plan period, and proposed Energy Supply Agreement
24 (“ESA”) pricing model for the Large Customer Market Price Energy (“LCMPE”)
25 Schedule No. LCMPE.¹
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28 ¹ I address NV Energy’s request to approve the ESA pricing model for the LCMPE tariff in conjunction with Staff witness, Swetha Venkat.

1 **4. Q. What are Staff’s recommendations to the Commission regarding the issues**
2 **discussed in Question and Answer (“Q&A”) 3?**

3 A. Staff recommends that the Commission:

- 4 1. Find that the Commission cannot render a prudency determination regarding NV
5 Energy’s request for continued approval of the Greenlink Nevada Project listed in
6 Prayer for Relief (“PFR”) Section 1(g)(xxix), which has a combined budget for
7 Greenlink West, Greenlink North, and Common Ties of \$4.128 billion, because
8 the Greenlink Nevada Project is a legislatively mandated project. If the
9 Commission would like to explore this issue more fully from a legal perspective, it
10 should require the filing of legal briefs.
- 11 2. Deny NV Energy’s request to designate the Greenlink West and Common Ties
12 projects as critical facilities, as listed in PFR Section 1(j);
- 13 3. Deny NV Energy’s requests for construction work in progress (“CWIP”) in rate
14 base accounting treatment and request to record and include the depreciation
15 expense without carry charges into a regulatory asset for the Greenlink Nevada
16 Project, as listed in PFR Section 1(k) and 1(l);
- 17 4. Approve NV Energy’s request for a Supply Plan addition of the Fort Churchill to
18 Comstock Meadows #2 345 kV transmission line at an incremental cost of \$97.4
19 million, as listed in PFR Section 1(g)(xv), but the in-service date should be
20 contingent on meeting the specific customers’ loads identified in Q&A 15 of the
21 Direct Testimony of Layne Maxfield;²
- 22 5. Approve NV Energy’s request for conditional approval to construct the third and
23 fourth 525/345 kilovolt (“kV”) transformers located at the Ft. Churchill substation
24 at a cost of \$12 million only upon loads connecting at the Ft. Churchill substation
25 materializing, as listed in PFR Section 1(g)(xvi);
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28 ² The Commission previously approved permitting, preliminary design, and engineering for the Fort Churchill to Comstock Meadows #2 345 kV transmission line at a cost of \$12.8 million. The total project cost is \$110.2 million and is included in the updated Greenlink Nevada Project budget of \$4.239 billion.

- 1 6. Approve NV Energy's proposed long-term avoided cost ("LTAC") rates listed in
2 PFR Section 1(m);
- 3 7. Deny NV Energy's request for approval of the recommended annual limits on the
4 total amount of energy and capacity that eligible NRS Chapter 704B customers
5 may be authorized to purchase from providers of new electric resources during the
6 Action Plan period, the Net Differential Energy Rate of \$0.04165 per kilowatt-
7 hour ("kWh"), and the variable operations and maintenance ("O&M) credit rate of
8 -\$0.00015 per kWh for the Action Plan period listed in PFR Section 1(e), and
9 order NV Energy, as a compliance item, to calculate and file the NRS Chapter
10 704B annual limits, Net Differential Energy Rate and variable O&M credit rate
11 without removing the loads of customers who do not have a Commission-
12 approved Energy Supply Agreement ("ESA");
- 13 8. Approve NV Energy's request, as listed in PRF Section 1(f), to issue a list of any
14 current and ongoing legislatively mandated public policy programs for which
15 eligible customers are required to pay costs, fees, charges or rates pursuant to NRS
16 704B.310(8), and order NV Energy, as a compliance item, to clarify how the
17 Commission's Orders to cease recording amounts to the net energy metering
18 ("NEM") regulatory asset accounts in Docket Nos. 23-06014 and 24-02026 affects
19 the NEM public policy costs NV Energy proposes to charge to eligible customers
20 pursuant to NRS 704B.310(8).
- 21 9. In lieu of the grid hour capacity cost component of the ESA long-term energy rate
22 in NV Energy's exemplar Large Customer Market Price Energy ("LCMPE")
23 models, order that the ESA customer should be billed the full base tariff general
24 rate ("BTGR") rate of its otherwise applicable rate class for grid delivered energy.
25 Staff witness Swetha Venkat summarizes Staff's recommendations regarding NV
26 Energy's request for approval of its exemplar LCMPE models.

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28 **I. Recommendation No. 1: Find that the Commission cannot render a prudence**

1 **determination regarding NV Energy’s request for continued approval of the Greenlink**
2 **Nevada Project listed in PFR Section 1(g)(xxix), which has a combined budget for**
3 **Greenlink West, Greenlink North and Common Ties of \$4.128 billion, because the**
4 **Greenlink Nevada Project is a legislatively mandated project.**

5
6 **Greenlink Nevada Project Background**

7 **5. Q. Please describe the Greenlink Nevada Project.**

8 A. NV Energy’s Greenlink Nevada Project, as proposed in the instant Docket, consists of
9 the Greenlink North 525 kV transmission line project (“Greenlink North”), the
10 Greenlink West 525 kV transmission line project (“Greenlink West”), the Fort
11 Churchill (“Ft. Churchill”) to Comstock Meadows (“Ft. Churchill to Comstock”) #1
12 and #2 345 kV transmission line projects, and the Fort Churchill to Mira Loma
13 transmission line project (referred to as the “Common Ties”).³ Attachment AED-2
14 provides a list of the associated line segments, substations, and major equipment of the
15 Greenlink Nevada Project. As of May 2024, NV Energy’s cost estimate for the
16 Greenlink Nevada Project is approximately \$4.239 billion without allowance for funds
17 used during construction (“AFUDC”).⁴

18 **6. Q. What is the amount of the AFUDC on the Greenlink Nevada Project?**

19 A. NV Energy stated that the total cost of the Greenlink Nevada Project is \$4.705 billion
20 with AFUDC.⁵ However, NV Energy provided Staff with two different AFUDC
21 amounts for the Greenlink Nevada Project: \$466.8 million in NV Energy’s response to
22 Staff DR 124 and \$641.8 million in the Direct Testimony of Christopher Sarda.⁶ NV
23 Energy stated that the difference between the \$466.8 million and \$641.8 million
24 AFUDC amounts are due to the different AFUDC calculation methodologies used and
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26 ³ See Attachment AED-2, NV Energy’s response to Staff DR 95. Staff has concerns regarding NV Energy’s
27 inclusion of the Ft. Churchill to Comstock Meadows #2 525 kV transmission line as part of the Greenlink Nevada Project
and those concerns are addressed further in Recommendation No. 4.

28 ⁴ Direct Testimony of Shahzad Lateef at 4.

⁵ See Attachment AED-3, NV Energy’s response to Staff DR 124.

⁶ See Attachment AED-4, NV Energy’s response to Staff DR 349.

1 that the \$466.8 million AFUDC amount is a more precise and accurate AFUDC
2 calculation than the AFUDC calculated by Mr. Sarda as it presents a more precise
3 monthly AFUDC calculation, which accounts for changing AFUDC rates, mid-year
4 in-service dates and monthly cash flow spend.⁷ Staff questions NV Energy's intent in
5 providing a higher AFUDC amount in Mr. Sarda's CWIP in rate base incentive
6 analysis and a lower AFUDC amount in response to Staff 124 regarding the total
7 Greenlink Nevada Project cost. Staff witness John Brownrigg further addresses NV
8 Energy's different AFUDC calculations and how those differences impact the analysis
9 performed by Mr. Sarda.

10 **7. Q. Please describe the Greenlink West project.**

11 A. NV Energy's Greenlink West project, as proposed in the instant Docket, consists of
12 the Ft. Churchill to Northwest 525 kV transmission line (broken down into the
13 Northwest to Amargosa, Amargosa to Esmeralda, and Esmeralda to Ft. Churchill 525
14 kV transmission line segments), the Harry Allen to Northwest 525 kV transmission
15 line, and the Ft. Churchill, Amargosa, Esmeralda, and Northwest substations. NV
16 Energy's current cost estimate for the Greenlink West project is approximately \$1.905
17 billion, without AFUDC, and NV Energy expects the Greenlink West project to be in
18 service by May 1, 2027.⁸

19 **8. Q. Please describe the Greenlink North project.**

20 A. NV Energy's Greenlink North project, as proposed in the instant Docket, consists of
21 the Ft. Churchill to Robinson Summit 525 kV transmission line (broken down into the
22 Ft. Churchill to Lander 525 kV and Lander to Robinson Summit 525 kV transmission
23 line segments) and the build out of the Lander 500 kV ring bus and the 230 kV
24 substation. NV Energy's current cost estimate for the Greenlink North project is
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28 ⁷ *Id.*
⁸ Supply Side Plan Narrative, Volume 8, at 124 of 393.

1 approximately \$1.493 billion, without AFUDC, and NV Energy expects the Greenlink
2 North project to be in service by December 31, 2028.⁹

3 **9. Q. Please describe the Common Ties.**

4 A. The Common Ties, as proposed in the instant Docket, are the Ft. Churchill to
5 Comstock #1 and #2 345 kV transmission lines, the Fort Churchill to Mira Loma 345
6 kV transmission line, and the Comstock Meadows and Mira Loma substations. NV
7 Energy's current cost estimate for the Common Ties is approximately \$841.4 million,
8 without AFUDC, and NV Energy expects the Common Ties to be in service by May 1,
9 2027.¹⁰

10 **10. Q. When did NV Energy originally propose the Greenlink Nevada Project?**

11 A. On July 20, 2020, NV Energy filed the Fourth Amendment to the 2018 Joint IRP ("4th
12 IRP Amendment") in Docket No. 20-07023, requesting Commission approval to:

- 13 • Construct Greenlink Nevada Phase 1 consisting of:
 - 14 ○ The Greenlink North project at a cost of approximately \$674.6
 - 15 million with an in-service date by December 31, 2026;
 - 16 ○ The Ft. Churchill to Mira Loma 345 kV transmission line and the
 - 17 Mira Loma substation at a cost of approximately \$71 million with
 - 18 an in-service date by December 31, 2026;
 - 19 ○ The Ft. Churchill to Comstock Meadows #1 345 kV transmission
 - 20 line and Comstock Meadows substation at a cost of approximately
 - 21 \$56.5 million with an in-service date by December 31, 2026; and
 - 22 ○ A new 525/345/230/120 kV substation just west of the existing Ft.
 - 23 Churchill substation at a cost of approximately \$166.5 million.
- 24 • Designate the Greenlink Nevada Phase 1 as critical facilities and allow for
- 25 NV Energy to include CWIP in rate base pursuant to Nevada
- 26 Administrative Code ("NAC") 704.9484(2); and

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28 ⁹ *Id.*

¹⁰ *Id.*

- 1 • Acquire land and permit Greenlink Nevada Phase 2 consisting of:
 - 2 ○ The Greenlink West project at a cost of approximately \$116.4 million
 - 3 to meet an anticipated in-service date by December 31, 2029; and
 - 4 ○ The Ft. Churchill to Comstock Meadows #2 345 kV transmission line
 - 5 at a cost of approximately \$10.6 million to meet an anticipated in-
 - 6 service date by December 31, 2029.

7 NV Energy's requests in the 4th IRP Amendment totaled approximately \$1.096
8 billion in costs, but NV Energy did not at the time provide an estimated cost to
9 construct the entire Greenlink Nevada Project.

10 After multiple parties to Docket No. 20-07023 raised concerns regarding NV
11 Energy's July 20, 2020, filing, NV Energy agreed to amend its filing and on October
12 7, 2020, NV Energy filed an Amended 4th IRP Amendment. NV Energy's Amended
13 4th IRP Amendment changed the preferred construction sequence for the components
14 of the Greenlink Nevada Project. NV Energy's requests totaled approximately \$1.647
15 billion in costs, but again, NV Energy did not at the time provide an estimated cost to
16 construct the entire Greenlink Nevada Project. Specifically, NV Energy requested
17 Commission approval to:

- 18 • Construct Greenlink Nevada Phase 1 consisting of:
 - 19 ○ The Greenlink West project at a cost of approximately \$1.2551
 - 20 billion with an in-service date by December 31, 2026;
 - 21 ○ The Ft. Churchill to Mira Loma 345 kV transmission line project at
 - 22 a cost of approximately \$85.2 million with an in-service date by
 - 23 December 31, 2026;
 - 24 ○ The Ft. Churchill to Comstock Meadows #1 345 kV transmission
 - 25 line project at a cost of approximately \$67.9 million with an in-
 - 26 service date by December 31, 2026;
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- A new 525/345/230/120 kV substation just west of the existing Ft. Churchill substation at a cost of approximately \$199.8 million with an in-service date by December 31, 2026;
- Designate Greenlink Nevada Phase 1 as critical facilities and allow for NV Energy to include CWIP in rate base; and
- Acquire land and permit Greenlink Nevada Phase 2 consisting of:
 - The Greenlink North project at a cost of approximately \$26.4 million to meet an anticipated in-service date by December 31, 2031; and
 - The Ft. Churchill to Comstock Meadow #2 345 kV transmission line at a cost of approximately \$12.8 million with an in-service date to be determined based upon the Tracy area load growth.

11. Q. Please describe the Commission’s Order regarding the Greenlink Nevada Project in Docket No. 20-07023.

A. In its March 21, 2021, Order, the Commission found that transmission expansion is needed to meet Nevada’s renewable energy and carbon reduction goals and that the Commission must balance those needs with the need for import capacity and with cost.¹¹ The Commission found that proceeding with the Greenlink West project first, and then granting certain permitting approvals for the Greenlink North project was the most sensible path forward for meeting all of the stated planning considerations.¹²

The Commission’s Order:

- Approved NV Energy’s request to construct the Greenlink West 525 kV transmission line with a budget of approximately \$1.037 billion project and an in-service date by December 31, 2026;
- Rejected NV Energy’s request to construct the Harry Allen to Northwest 525 kV transmission line and instead approved the conceptual design, permitting,

¹¹ Commission’s Order, May 11, 2021, Docket No. 20-07023, at 139-44, 265-72.

¹² *Id.*

1 and land acquisition for the transmission line with a budget of approximately
2 \$14.3 million, giving NV Energy the ability to request approval to construct
3 the line in a future IRP;

- 4 - Approved NV Energy's request to expand the Northwest substation to
5 accommodate the Greenlink West 525 kV transmission line with a budget of
6 approximately \$80 million;
- 7 - Approved NV Energy's request to construct the Mira Loma 345 kV
8 transmission line with a budget of approximately \$85.2 million and an in-
9 service date by December 31, 2026;
- 10 - Approved NV Energy's request to construct the Ft. Churchill 525/345/230/120
11 kV substation to accommodate the Greenlink West 525 kV and Ft. Churchill to
12 Comstock #1 345 kV transmission lines with a budget of approximately \$199.8
13 million;
- 14 - Approved NV Energy's request to construct the Ft. Churchill to Comstock
15 Meadows #1 345 kV transmission line with a budget of approximately \$67.9
16 million and an in-service date by December 31, 2026;
- 17 - Conditionally approved NV Energy's request for conceptual design,
18 permitting, and land acquisition of the Greenlink North project with a budget
19 of approximately \$26.4 million with a finding that there is no presumption of
20 the need, scope and construction of the 525 kV configuration and that the
21 conditional approval does not constitute approval of NV Energy's proposed
22 December 31, 2031, in-service date;
- 23 - Approved NV Energy's request for conceptual design, permitting, and land
24 acquisition of the Ft. Churchill to Comstock Meadows #2 345 kV transmission
25 line with a budget of approximately \$12.8 million; and
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1 - Found that there was no basis for a critical facility designation for Phase 1 of
2 the Greenlink Nevada Project and declined to grant critical facility treatment.¹³

3 The Commission approved the above-mentioned Greenlink Nevada projects
4 totaling approximately \$1.523 billion in costs, or approximately 92.5 percent, of NV
5 Energy's requested Greenlink Nevada projects totaling \$1.647 billion in costs and
6 permitted NV Energy to re-seek Commission approval for the remaining projects at a
7 future date.

8 **12. Q. Did NV Energy file a petition for reconsideration of the Commission's March 21,**
9 **2021, Order?**

10 A. No. Las Vegas Sands Corp. and Plaza Hotel and Casino, LLC were the only parties
11 that filed a petition for reconsideration of the Commission's March 21, 2021, Order.
12 NV Energy did not file for reconsideration, rehearing, or seek clarification of the
13 Commission's March 21, 2021, Order regarding its Greenlink Nevada Project
14 requests.¹⁴ However, as it turns out, NV Energy clearly did not agree with the
15 Commission's Order, despite the Commission approving over 90 percent of the costs
16 NV Energy requested, because NV Energy proceeded to go to the Nevada Legislature
17 (which was currently in session) to request that it mandate construction of the
18 Greenlink Nevada Project not only for the portions of the project the Commission
19 rejected, but for the entire Greenlink Nevada Project, which NV Energy had not even
20 presented to the Commission for approval. On May 13, 2021, just two days after the
21 Commission's May 11, 2021, Order on Las Vegas Sands Corp.'s and Plaza Hotel and
22 Casino, LLC's Petition for Reconsideration was issued, Senator Chris Brooks
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26 ¹³ Docket No. 20-07023, Order at 139-44, 236-39, 265-72, and 287-288, issued May 11, 2021.

27 ¹⁴ The Commission approved almost everything NV Energy was requesting in its Amended Application in Docket
28 No. 20-07023. NV Energy only requested siting, permitting and land acquisition of the Greenlink North project and the
Commission granted that request. The only requests that the Commission did not approve were NV Energy's request to
construct the Harry Allen-Northwest 525 kV transmission line and to designate the Greenlink West project, including the
Harry Allen to Northwest 525 kV transmission line, as critical facilities.

1 introduced Senate Bill (“SB”) 448 in the 2021 Nevada legislative session that
2 mandated precisely what NV Energy requested.¹⁵

3 **13. Q. Please describe SB 448 as it relates to the Greenlink Nevada Project.**

4 A. In Sections 20 through 24 of SB 448, signed by Governor Sisolak on June 10, 2021,
5 NV Energy is required to file a transmission infrastructure for a clean energy economy
6 plan (“TICEEP”) on or before September 1, 2021, as an amendment to NV Energy’s
7 2021 IRP Application. The TICEEP, now codified in NRS 704.79871 through NRS
8 704.7988, sets forth that NV Energy must file a plan to construct the following two
9 high voltage transmission infrastructure projects no later than December 31, 2028,
10 which are the projects that the Commission had rejected NV Energy’s request to
11 construct, but approved the conceptual design, permitting and land acquisition for: (1)
12 a project for the implementation of high-voltage transmission infrastructure
13 interconnecting northwest and northeast Nevada, which will increase the transmission
14 import capacity of northern Nevada by not less than 800 megawatts (an eloquent
15 definition of the Greenlink North Project); and (2) a project for the implementation of
16 high-voltage transmission infrastructure located in southern Nevada and accessing a
17 federally designated renewable energy transmission corridor that will accommodate
18 future renewable energy development and increased demand for electricity (an
19 eloquent definition of the Harry Allen to Northwest 525 kV transmission line project).
20 SB 448 also had other mandates such as requiring NV Energy to investigate the
21 availability of federal grant money to help offset implementation of the TICEEP and
22 also required rate mitigation measures be proposed when the legislatively mandated
23 TICEEP costs were brought in for rate recovery.

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28 ¹⁵ NV Energy appears to have begun lobbying the Nevada Legislature prior the Commission’s adjudication of
Docket No. 20-07023 in order for Senator Brooks to introduce SB 448 just two days after the Commission’s May 11,
2021, Order on reconsideration.

1 **14. Q. Please describe NV Energy's TICEEP.**

2 A. Pursuant to Section 21 of SB 448, NV Energy filed its TICEEP in Docket No. 21-
3 06001 on September 1, 2021, which was designated as Phase 4, requesting the
4 Commission to find that its TICEEP is adequate and to authorize NV Energy to
5 commence development and construction of:

- 6 - The Greenlink North project consisting of the Ft. Churchill to Robinson
7 Summit 525 kV transmission line, a 525/230 kV collector substation, and Ft.
8 Churchill 525/345/230/120 kV substation interconnection at a cost of \$901
9 million - \$854.1 million for the transmission line and collector substation and
10 \$46.8 million to complete the build-out of the Ft. Churchill substation to
11 interconnect the transmission line.
- 12 - The Harry Allen to Northwest 525 kV transmission line at a cost of \$143.1
13 million - \$137.9 million for the construction of the transmission line and \$5.2
14 million to interconnect the transmission line into the Northwest substation.

15 **15. Q. Did the Commission find NV Energy's TICEEP adequate?**

16 A. Yes. On January 26, 2022, the Commission accepted a stipulation between the parties
17 to the TICEEP in Docket No. 21-06001. In the stipulation, the parties agreed that the
18 Commission should:

- 19 - Find that NV Energy's TICEEP satisfied the requirements of SB 448;
- 20 - Find that NV Energy's TICEEP is adequate and authorize NV Energy to
21 commence development and construction of the:
 - 22 o Greenlink North project at a total cost of \$901 million; \$854.1 for the
23 Ft. Churchill to Robinson Summit 525 kV transmission line and \$46.8
24 million to build out the Ft. Churchill substation to interconnect the
25 transmission line;
 - 26 o The Harry Allen to Northwest 525 kV transmission line project at a
27 cost of \$143.1 million - \$137.9 million for the transmission line and
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1 \$5.2 million build-out the Northwest substation to interconnect the
2 transmission line;

- 3 - Designate the Greenlink North project and Harry Allen to Northwest 525 kV
4 transmission line project as critical facilities for the “purpose of fulfilling a
5 specific statutory mandate” pursuant to NAC 704.9484(2)(d) but do not grant
6 or authorize any incentive pursuant to NAC 704.9484(3) reserving this
7 Commission determination for future proceedings.¹⁶

8 **16. Q. Did NV Energy provide an update for the Greenlink Nevada Project in its Action**
9 **Plan Progress Report filed pursuant to NAC 704.9498 in Docket No. 23-02033?**

10 A. Yes. In its February 28, 2023, Action Plan Progress Report, NV Energy stated that the
11 Greenlink West and Greenlink North projects were progressing on schedule to meet
12 the December 2026, and December 2028, dates, respectively.¹⁷ However, NV Energy
13 stated that proposals for construction and long-lead materials were approximately 15
14 and 25 percent, respectively, higher in cost than originally estimated, including the
15 contingency amounts.¹⁸

16 **17. Q. Did NV Energy provide another update for the Greenlink Nevada Project in its**
17 **5th IRP Amendment to the 2021 IRP in Docket No. 23-08015?**

18 A. Yes. In its August 21, 2023, 5th IRP Amendment to the 2021 IRP, NV Energy stated
19 that as of July 20, 2023, the Greenlink Nevada project cost estimate increased by \$443
20 million, or approximately 17.8 percent, to \$2.927 billion, which included a 10 percent
21 contingency.¹⁹ NV Energy stated that the revised Greenlink Nevada Project cost
22 estimate was based on the preliminary and final proposals for materials and services
23 received to date and used the proposals to proportionally escalate the remainder of the
24 project estimates and included sales tax based on planned procurement of materials.²⁰

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27 ¹⁶ Docket No. 21-06001, Order, Attachment A (Stipulation) at 9-10, issued January 26, 2022.

¹⁷ Docket No. 23-02033, NV Energy’s Action Plan Progress Report at 6, 15-16, filed February 28, 2023.

¹⁸ *Id.*

¹⁹ Docket No. 23-08015, Exhibit 118 at 4 (Direct Testimony of Carolyn Barbash).

²⁰ *Id.* at 4-5.

1 NV Energy added that supply chain disruptions, workforce shortages, and Bureau of
2 Land Management (“BLM”) permitting requirements were the main causes for the
3 increased cost estimate.²¹ However, NV Energy stated that the Greenlink Nevada
4 Project remained on schedule to meet the December 2026 and December 2028 in-
5 service dates for Greenlink West and Greenlink North.²² For the Greenlink West
6 project, NV Energy stated it expected the BLM to issue the Final Environmental
7 Impact Statement (“FEIS”) in December 2023, a record of decision (“ROD”) in
8 February 2024 and a notice to proceed (“NTP”) in July 2024.²³ For the Greenlink
9 North project, NV Energy stated that it expected the BLM to issue a Draft
10 Environmental Impact Statement (“DEIS”) in December 2023, a FEIS in June 2024,
11 ROD in September 2024, and a NTP in February 2025.²⁴

12 **18. Q. Did NV Energy request the Commission approve the revised Greenlink Nevada**
13 **Project cost estimate?**

14 A. No. At hearing, NV Energy witness Shahzad Lateef, who adopted Ms. Barbash’s
15 Direct Testimony, stated that the revised Greenlink Nevada Project cost estimate was
16 provided to the Commission for informational purposes only because NV Energy had
17 an obligation to inform the Commission.²⁵

18 **19. Q. Did NV Energy give a reason as to why it did not request Commission approval**
19 **of the revised Greenlink Nevada Project cost estimate?**

20 A. Yes. During cross examination, Mr. Lateef stated that it was his opinion that any
21 prudence determination regarding the Greenlink Nevada Project cost overruns will be
22 considered by the Commission in a GRC when NV Energy proposes to put the
23 Greenlink Nevada Project costs into rates.²⁶

26 ²¹ *Id.* at 5-6, Exhibit-Barbash-Direct 2 at 2.

27 ²² Docket No. 23-08015, Exhibit 118 at 5-6 (Direct Testimony of Carolyn Barbash).

28 ²³ *Id.* at 6.

²⁴ *Id.*

²⁵ Docket No. 23-08015, Tr. Vol. 1 at 224 [January 17, 2024].

²⁶ *Id.* at 227.

1 **20. Q. Did the Greenlink Nevada Project status change during the pendency of Docket**
2 **No. 23-08015?**

3 A. Yes. During cross examination, Mr. Shahzad Lateef stated that the BLM FEIS
4 issuance for the Greenlink West project was delayed six months, from December 2023
5 to May 2024.²⁷ To make up for the six-month delay, Mr. Lateef stated that NV Energy
6 would compress the Greenlink West project construction schedule by six months to
7 achieve the May 31, 2027 in-service date, which, at the time, increased construction
8 cost estimates by \$65 million.²⁸ Mr. Lateef also stated during cross examination that,
9 as of January 17, 2024, the BLM had not yet issued the DEIS for the Greenlink
10 Nevada Project that was expected in December 2023, and that it was expected to be
11 issued in May 2024, causing yet another permitting delay.²⁹

12 **21. Q. NV Energy states that the Commission approved a \$2.484 billion budget for the**
13 **Greenlink Nevada Project.³⁰ Do you agree?**

14 A. No, I do not believe that to be true. NV Energy requested and received piecemeal
15 Commission approval of the Greenlink Nevada Project. NV Energy has never
16 previously presented the entire Greenlink Nevada Project budget until now.
17 Therefore, the Commission has never explicitly approved the \$2.484 billion Greenlink
18 Nevada Project budget. Additionally, I do not know how NV Energy arrived at the
19 \$2.484 billion Greenlink Nevada project budget. Because of the piecemeal
20 Commission approval of the Greenlink Nevada Project, I was unable to re-create the
21 \$2.484 billion budget amount in my review of NV Energy's filings and the
22 Commission's Orders in Docket Nos. 20-07023 and 21-06001.

23 **22. Q. What is the status of the Greenlink Nevada Project?**

24 A. The Greenlink Nevada Project is currently in various stages of design and permitting.
25 On September 9, 2024, approximately six months later than NV Energy's anticipated
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27 ²⁷ *Id.* at 220-21, 230-31.

28 ²⁸ *Id.*

28 ²⁹ *Id.*

³⁰ Direct Testimony of Shahzad Lateef at 4.

1 February 2024 timeline, the BLM issued its record of decision on the Greenlink West
2 project. On September 10, 2024, approximately two months later than NV Energy's
3 anticipated July 2024, timeline, the BLM issued a Draft Environmental Impact
4 Statement for the Greenlink North project.

5 NV Energy has executed contracts or has firm proposals in place for
6 construction services and long-lead-time materials amounting to \$3.314 billion,
7 approximately 78 percent, of the \$4.239 billion cost.³¹ As of June 30, 2024, NV
8 Energy has expended approximately \$227 million on the Greenlink Nevada Project -
9 \$132 million on Greenlink West, \$36 million on Greenlink North, and \$59 million for
10 the Common Ties.³² By the end of 2024, at the time the Commission will render an
11 order in the instant Docket, NV Energy expects to have expended \$626 million, which
12 amounts to approximately 15 percent of the total estimated cost of the project, on the
13 Greenlink Nevada Project - \$355 million on Greenlink West, \$119 million on
14 Greenlink North, and \$152 million on the Common Ties.³³

15
16 **Greenlink Nevada Project (Prayer for Relief Section 1(g)(xxix))**

17 **23. Q Please describe NV Energy's PFR Section 1(g)(xxix) regarding the Greenlink**
18 **Nevada Project in the instant docket.**

19 A. In PFR Section 1(g)(xxix), NV Energy requests the Commission's continued approval
20 of the Greenlink Nevada Project with a combined budget for the Greenlink West,
21 Greenlink North, and Common Ties projects of \$4.128 billion (\$4.239 billion when
22 including the \$97.4 million cost to construct the Ft. Churchill to Comstock Meadows
23 #2 345 kV transmission line).³⁴

24
25
26
27 ³¹ Supply Side Plan Narrative, Vol. 8 at 127 of 393.

28 ³² See Attachment AED-5, NV Energy's response to Staff DR 121.

³³ See Attachment AED-6, NV Energy's response to Staff DR 122.

³⁴ The Ft. Churchill to Comstock Meadows #2 345 kV transmission line is discussed in Recommendation No. 4.

1 **24. Q. What specific transmission infrastructure is NV Energy seeking continued**
2 **Commission approval for in its PFR Section 1(g)(xxix)?**

3 A. NV Energy did not provide a detailed listing or discussion of the specific transmission
4 infrastructure it is seeking continued Commission approval of in its PFR Section
5 1(g)(xxix). In order to obtain that information, Staff requested in discovery for NV
6 Energy to identify the infrastructure for which it was seeking approval in this case. In
7 its supplemental response to Staff DR 172, provided as Attachment AED-7, NV
8 Energy identified each Greenlink Nevada Project line segment, substation, and major
9 equipment it is seeking continued Commission approval to construct in its PRF
10 Section 1(g)(xxix).

11 **25. Q. Did you have any concerns regarding NV Energy’s response to Staff DR 172?**

12 A. Yes. In its supplemental response to Staff DR 172, NV Energy indicates that it is
13 seeking continued approval from the Commission for the build-out of the Amargosa
14 and Esmeralda 230 kV substations, including procuring four 525/230 kV 600
15 megavolt-ampere (“MVA”) transformers for each substation, as part of its Greenlink
16 Nevada Project \$4.128 billion budget request in PFR Section 1(g)(xxix) and is also
17 requesting the Commission to designate the Amargosa and Esmeralda 230 kV as
18 critical facilities. However, the build-out of the Amargosa and Esmeralda 230 kV
19 substations, including the procurement of four 525/230 kV transformers, was recently
20 approved by the Commission in Docket No. 23-08015 which was only a few months
21 prior to NV Energy’s filing of its 2024 IRP Application in the instant docket.
22 Therefore, I was confused by NV Energy’s supplemental response to Staff DR 172.

23 **26. Q. Please describe NV Energy’s request to construct the Amargosa and Esmeralda**
24 **230 kV substations in Docket No. 23-08015.**

25 A. NV Energy requested Commission approval to construct four 525/230 kV
26 transformers and breaker additions at the Amargosa and Esmeralda substations
27 simultaneously with the 525 switching yards at each substation at an estimated cost of
28

1 \$40.2 and \$56.5 million, respectively, due to the large amounts of renewable energy
2 resources requesting interconnection at the 230 kV level.³⁵

3 **27. Q. Did Staff have concerns regarding NV Energy’s request to construct the**
4 **Amargosa and Esmeralda 525/230 kV transformers and breaker additions in**
5 **Docket No. 23-08015?**

6 A. Yes. Staff testified that NV Energy had already procured all the major equipment for
7 the Esmeralda and Amargosa 230 kV substation including the 525/230 kV
8 transformers, and was planning to award the construction contract before the
9 Commission would issue its decision.³⁶ Additionally, Staff testified that since NV
10 Energy is developing the Amargosa Solar project, a 1200 MW solar with a 1200 MW
11 battery energy storage system (“BESS”), that will interconnect on the 525 kV side of
12 the Amargosa substation, there would likely not be sufficient capacity on the
13 Greenlink West project for other renewable energy projects seeking to interconnect at
14 the 230 kV level.³⁷

15 **28. Q. What was the Commission’s decision regarding the NV Energy’s request to**
16 **construct the Amargosa and Esmeralda 230 kV substations?**

17 A. The Commission approved NV Energy’s request to construct the Amargosa and
18 Esmeralda 230 kV substations and determined that constructing the 230 kV
19 substations simultaneously with constructing the 525 kV substations would reduce the
20 costs of the 230 kV facilities by approximately \$10 million.³⁸ In its Order, the
21 Commission noted that the lead times for transformers, breaker, insulators, and
22 switches have nearly doubled over the past two years and the Commission found that
23 postponing acquisition of long-lead equipment of the 230 kV substation would
24 increase costs and delay renewable energy resource interconnection by two or more
25

27 ³⁵ Docket No. 23-08015, Exhibit 116 at 6.

28 ³⁶ Docket No. 23-08015, Exhibit 304 at 2-3, 5 (Direct Testimony of Ryan Sinclair).

³⁷ *Id.* at 3-7.

³⁸ Docket No. 23-08015, Order at 130-31, issued April 9, 2024.

1 years.³⁹ However, the Commission ordered that the costs associated with the four 230
2 kV transformers to be constructed at the Amargosa and Esmeralda substations shall be
3 recorded to the appropriate Plant Held for Future Use account until the 230 kV
4 facilities are serving customer load or interconnecting large generators.⁴⁰

5 **29. Q. What is the status of the Amargosa and Esmeralda 525/230 kV transformers?**

6 A. NV Energy had initially procured six 525/230 kV transformers, two transformers for
7 each of the Lander, Amargosa, and Esmeralda substations, on July 17, 2023,
8 approximately one month prior to NV Energy filing its 5th IRP Amendment in Docket
9 No. 23-08015.⁴¹ On September 25, 2023, (approximately one month after NV Energy
10 filed its 5th IRP Amendment in which NV Energy was asking the Commission to
11 approve the acquisition of four of the six transformers), NV Energy cancelled the two
12 transformers planned for the Amargosa 230 kV substation due to NV Energy's
13 Amargosa Solar project requesting interconnection at the Amargosa 525 kV
14 substation, but did not notify Staff or the Commission of this change.⁴² On February
15 12, 2024, prior to the Commission's March 1, 2024, Order in Docket No. 23-08015,
16 NV Energy cancelled the other two transformers for the Esmeralda Substation in part
17 due to increasing cancellation fees based on transformers design, engineering, and
18 manufacturing milestones, and again did not notify Staff or the Commission of this
19 change.⁴³ NV Energy states that it still intends to move forward with the 230 kV
20 substation build out at the Amargosa and Esmeralda substations, when needed, as
21 approved by the Commission in Docket No. 23-08015.⁴⁴

26 ³⁹ *Id.*

27 ⁴⁰ *Id.*

28 ⁴¹ *See* Attachment AED-8, NV Energy's response to Staff DR 337.

⁴² *See* Attachment AED-9, NV Energy's response to Staff DR 171.

⁴³ *See* Attachment AED-10, NV Energy's response to Staff DR 338.

⁴⁴ *Id.*

1 **30. Q. How does NV Energy intend to move forward with the 230 kV substation build**
2 **out at the Amargosa and Esmeralda substations since it cancelled all four of the**
3 **525/230 kV transformers?**

4 A. NV Energy received Commission approval to build out the 230 kV facilities, including
5 the procurement of two 525/230 kV transformers, at the Lander substation as part of
6 its Greenlink North project in its TICEEP filing in Docket No. 21-06001. It is my
7 understanding through discussions with NV Energy, that NV Energy intends to move
8 those two 525/230 kV transformers to the Amargosa and/or Esmeralda substations
9 depending on where NV Energy deems the transformers are most needed.

10 **31. Q. Do you have concerns regarding NV Energy's cancellation of the four 525/230 kV**
11 **transformers at the Amargosa and Esmeralda substations and intention to move**
12 **the two 525/230 kV transformers at the Lander substation to either the**
13 **Amargosa or Esmeralda substations?**

14 A. Yes. I have two major concerns. First, I am concerned with NV Energy's ever-
15 changing story about the urgent need for the four 525/230 kV transformers at the
16 Amargosa and Esmeralda 230 kV substations. In Docket No. 23-08015, NV Energy
17 insisted that it had to procure the four 525/230 kV transformers for the Amargosa and
18 Esmeralda 230 kV substations at that time due to the long lead times for transformers
19 and postponing procurement of the transformers would increase costs and cause a two
20 year or more delay for interconnecting renewable energy resources. NV Energy stated
21 that the situation was so dire that it had to procure those transformers before obtaining
22 Commission approval to do so. However, NV Energy subsequently demonstrated that
23 this situation was in fact not dire by cancelling the four 525/230 kV transformers
24 before the Commission even rendered a decision. It is troubling that NV Energy
25 regularly argues before the Commission that various situations are urgent when that's
26 not the case, and suggesting if the Commission fails to approve its urgent requests, the
27
28

1 “sky will fall” or dire consequences will follow.⁴⁵ Nevertheless, NV Energy is still
2 claiming that the Amargosa and Esmeralda 230 kV substations are critical as it is
3 requesting that the Commission designate the two substations as critical facilities in
4 order to receive financial incentives, in the instant docket, even though it cancelled the
5 major equipment for the substations. NV Energy stated that it intends to re-order
6 materials and start construction on the Amargosa and Esmeralda 230 kV substations
7 once large generator interconnection agreements or agreements to serve a customer’s
8 load are executed.⁴⁶ NV Energy has failed to explain how a facility could be
9 designated as a critical facility when the need for that facility is currently unknown
10 and may likely never be needed. NV Energy’s requests are unreasonable and its
11 actions are utterly confounding, reminiscent of the Aesop’s fable, “The Boy Who
12 Cried Wolf.”

13 Second, I am concerned with NV Energy’s treatment of the Greenlink Nevada
14 Project as a fungible project. In Docket No. 21-06001, NV Energy received
15 Commission approval to construct the Greenlink North project as required by statute,
16 including the build out of the Lander 230 kV substation and two 525/230 kV
17 transformers, with an in-service date no later than December 31, 2028. NV Energy
18 has not requested Commission approval to modify any portion of the Greenlink North
19 project; thus, while I am not an attorney, it is my understanding that NV Energy is
20 required to build out the Lander 230 kV substation and any attempt to do otherwise
21 should be considered a failure by NV Energy to comply with a Commission Order, a
22 Nevada statute, and worthy of potential administrative sanctions.

27 ⁴⁵ For example, in Docket No. 22-03028, NV Energy stressed to the Commission that time was of the essence in
28 needing to approve the merger before the end of the calendar year. Following multiple procedural delays, NV Energy
ultimately withdrew its application, demonstrating the merger was not necessary.

⁴⁶ See Attachment AED-11, NV Energy’s non-confidential response to BCP DR 12-03.

1 **32. Q. Are the costs associated with the build out of the Amargosa and Esmeralda 230**
2 **kV substations included in the \$4.128 billion Greenlink Nevada Project cost**
3 **estimate?**

4 A. No. The approximately \$100 million in costs to build out the Amargosa and
5 Esmeralda 230 kV substations is not included in the \$4.128 billion Greenlink Nevada
6 Project cost estimate. However, NV Energy has included the cancellation costs
7 associated with NV Energy cancelling the transformers in the estimate. As such, there
8 are already imprudent costs included in this estimate. Ratepayers should never be
9 asked to pay for the cost of cancelling equipment that should never have been
10 purchased to begin with.

11 **33. Q. Should the Amargosa and Esmeralda 230 kV substations be designated as critical**
12 **facilities?**

13 A. No. NV Energy has not demonstrated the need to build out the Amargosa and
14 Esmeralda 230 kV substations. There are no executed large generator interconnection
15 agreements or Rule 9 customer agreements executed for the Amargosa and Esmeralda
16 230 kV substations. In fact, NV Energy has stated that its Amargosa Solar project
17 significantly reduces interconnection transmission capacity on the Amargosa 230 kV
18 substation, because NV Energy has already reserved a majority of the Greenlink West
19 transmission capacity at the Amargosa 525 kV substation for the Amargosa Solar
20 project, and therefore, it is unclear if these collector substations will ever need to be
21 built.

22 **34. Q. Do you have any concerns regarding NV Energy’s request for “continued IRP**
23 **approval” of the Greenlink Nevada Project (PFR Section 1(g)(xxix)) at a budget**
24 **of approximately \$4.128 billion?**

25 A. Yes. I have concerns regarding the specific statutory provisions under which NV
26 Energy is requesting continued approval of the Greenlink Nevada Project and whether
27 the Commission can practically make a determination regarding NV Energy’s PFR
28 Section 1(g)(xxix), and NV Energy’s estimated cost of the Greenlink Nevada Project.

1 **35. Q. Please describe your concerns regarding the specific statutory provisions under**
2 **which NV Energy is requesting continued approval of the Greenlink Nevada**
3 **Project.**

4 A. As previously described, the Greenlink West and Greenlink North projects were
5 approved by the Commission under different statutory authorities that have vastly
6 different requirements that NV Energy must meet. The Commission's approval of the
7 Greenlink West project was authorized under the traditional IRP process outlined in
8 NRS 704.741. The Commission's approval of the Greenlink North project and the
9 Harry Allen to Northwest 525 kV transmission line was authorized pursuant to the
10 TICEEP requirements outlined in NRS 704.79871 through NRS 704.7879. In the
11 instant Docket, NV Energy did not identify the specific statutory provisions under
12 which it is requesting Commission approval. Furthermore, I am concerned that the
13 Commission may no longer have the authority to cancel the Greenlink West project
14 because it is an integral part of NV Energy's TICEEP and the governing statutes
15 setting forth the Nevada Legislature's public policy decisions.

16 **36. Q. Are there any differences between the traditional IRP process in NRS 704.741**
17 **and the TICEEP in NRS 704.79871?**

18 A. Absolutely. Although I am not an attorney and I am not offering a legal opinion, the
19 utility's triennial IRP filing under NRS 704.741 to increase the electric utility's supply
20 of electricity or decrease the demands made on its system by its customers requires a
21 robust analysis evaluating a full range of alternatives to provide reliable electric
22 service to the utility's customers, while the TICEEP in NRS 704.79871 directs the
23 electric utility to construct specific infrastructure to spur economic development by a
24 specific date. SB 448 sponsor Senator Brooks, states it best under questioning from
25 Senator Hammond during the May 17, 2021, session of the Senate Committee on
26 Growth and Infrastructure:

27 SENATOR HAMMOND: This is a bold bill, and we are 14 days away
28 from the end of the Session. I wanted to dig deep into the issues. Because
it is bold, many people have contacted me with questions. The bill states

1 the request goes to PUCN, and as long as the request hits the marks, the
2 PUCN "has to" approve it. Can you go through this part so people
3 understand better why it needs to be done? Typically, we do not tie the
4 hands of the PUCN. We allow the Commissioners the autonomy to deal
5 with the subject matter they are good at. I am sure it will dovetail into
6 the ratepayers and with the savings.

7
8 SENATOR BROOKS: We worked closely with the Bureau of Consumer
9 Protection; the PUCN; the electric utility; NV Energy; environmental,
10 social and environmental justice groups; conservation groups; and
11 people in the energy industry over the last year. We worked closely with
12 entities, including the PUCN, to ensure we were addressing the right
13 balance of policy initiative and ratepayer protection. You are correct, this
14 bill is more prescriptive than other pieces of legislation. Normally, this
15 is a plan proposed and debated in front of the PUCN. This plan lays out
16 a road map for the future of Nevada. It states if we build the transmission
17 lines and implement this electrical infrastructure for charging, wonderful
18 events will happen. Mr. Potts and Mr. Brown alluded to data. Mr.
19 Cannon and others say if we build the projects, economic opportunities
20 will happen for our State. The PUCN is the regulator, and this is not its
21 job; it is not in the economic development business. It is keeping rates
22 low, keeping the lights on and ensuring when the utility makes an
23 investment, it does it in the most prudent fashion possible. It does not
24 have the ability to contemplate the economic benefit. It is a policy
25 decision to carry out these ideas, lay the groundwork for Nevada well
26 beyond just keeping the lights on and providing reliable electricity. At
27 the same time, it gives the Commission the tools necessary to ensure the
28 utility performs the details we direct it to do in the most cost-effective
manner possible.

16 SENATOR HAMMOND: This comes back to the bureaucratic model.
17 We give an agency a parameter to work in. We say, this is your box; the
18 agency becomes good at it and builds in efficiencies. You are saying this
19 is one of the instances where we as the Legislature are directing this
20 policy change, giving direction because we are asking the PUCN to work
21 outside its box and instituting the new changes. Are you saying by giving
22 the Commission the direction and making this policy decision, S.B. 448
23 eventually lowers rates because of Greenlink Nevada, the jobs, the flow
24 of energy through our State and the new structure of our energy
25 economy?

21 SENATOR BROOKS: Yes, you described it perfectly. That is the intent
22 of the bill, but it is not necessarily the responsibility of the PUCN to even
23 contemplate what private investment in the State would look like if we
24 built a transmission line. Its responsibility is to decide to keep the lights
25 on today, do we need to build it tomorrow, and if so, how can it be done
26 at the lowest cost possible. It is PUCN's job. This goes well beyond that
27 because it lays out groundwork for economic development for our
28 State.⁴⁷

⁴⁷ See Attachment AED-12, Minutes of the Senate Committee on Growth and Infrastructure at 19-20, May 17, 2021.

1 **37. Q. Given that the Greenlink West and Greenlink North projects were approved**
2 **under different statutory provisions, under what statutory authority is NV**
3 **Energy requesting continued Commission approval of the Greenlink Nevada**
4 **Project in the instant Docket?**

5 A. NV Energy stated that it is seeking continued Commission approval of the Greenlink
6 North project and the Harry Allen to Northwest 525 kV transmission line through the
7 TICEEP.⁴⁸ NV Energy added that the Commission accepted NV Energy's TICEEP
8 pursuant to NRS 704.79877(8) in Docket No. 21-06001 and that the Commission also
9 approved the evaluation required in NRS 704.798774(a) through 4(n).⁴⁹ Staff
10 propounded DRs requesting NV Energy to identify the specific legal authority
11 pursuant to which it is seeking continued Commission approval for the Greenlink
12 West project and the Ft. Churchill to Comstock Meadows #1 and #2 345 kV
13 transmission lines, however NV Energy refused to identify a specific legal authority
14 and generically responded that it is seeking continued approval of the Greenlink West
15 project in accordance with the applicable Optional Pricing and Resource Planning
16 provisions of NRS and NAC Chapters 704.⁵⁰

17 **38. Q Does the Commission have the legal authority to grant NV Energy's requested**
18 **approval of the Ft. Churchill to Comstock Meadows #1 345 kV transmission line**
19 **and the construction of the Ft. Churchill to Comstock Meadows #2 345 kV**
20 **transmission line?**

21 A. Yes. However, the Commission has already approved the construction of the Ft.
22 Churchill to Comstock Meadows #1 345 kV transmission line at a budget of
23 approximately \$67.9 million in Docket No. 20-07023. Therefore, the Commission
24 does not have to re-approve the Ft. Churchill to Comstock Meadows #1 345 kV
25 transmission line and can review the prudence of any cost increases in the context of a
26

27 ⁴⁸ See Attachment AED-13, NV Energy's response to Staff DR 92.

28 ⁴⁹ *Id.*

⁵⁰ See Attachment AED-14, NV Energy's supplemental responses to Staff DRs 93 and 94.

1 GRC. Recommendation No. 4 discusses NV Energy's request to construct the Ft.
2 Churchill to Comstock Meadows #2 345 kV transmission line.

3 **39. Q. Please describe your concerns regarding whether the Commission has the**
4 **authority to grant NV Energy's request listed in Prayer for Relief Section**
5 **1(g)(xxix).**

6 A. I am unsure whether the Commission, from a practical standpoint, has the authority to
7 grant NV Energy's request for continued approval of the Greenlink West project (PFR
8 Section 1(g)(xxix)). Although I am not an attorney and am not offering a legal
9 opinion, I believe the Commission's authority to determine prudence of the Greenlink
10 West project was essentially circumvented by the passage of SB 448 and the
11 enactment of the TICEEP.

12 **40. Q. Please explain why you believe that the Commission's authority to determine**
13 **prudence of the Greenlink West project was circumvented by the passage of SB**
14 **448.**

15 A. Not constructing the Greenlink West project affects NV Energy's TICEEP. NV
16 Energy's TICEEP is essentially a three-legged stool with the Greenlink West,
17 Greenlink North, and Harry Allen to Northwest 525 kV transmission lines
18 representing the individual legs of the stool. If one leg of the stool is removed, the
19 stool falls. Without the Greenlink West project, NV Energy's TICEEP fails to achieve
20 the purpose, objectives, and benefits outlined in NRS 704.79877(1), NRS
21 704.79877(2)(a), and NRS 704.79877(4). It is my understanding that the Commission
22 cannot force NV Energy to take an action that would essentially result in NV Energy
23 "breaking the law." The Commission, in Docket Nos. 20-07023 and 21-06001, has
24 already approved NV Energy's Greenlink Nevada Project components based on the
25 information and evidence presented in those dockets. Therefore, there is no additional
26 decision for the Commission to make in the instant Docket.

1 **41. Q. Did the 2021 Nevada Legislature craft the TICEEP in SB 448 based upon the**
2 **Commission’s approval of the Greenlink West project in Docket No. 20-07023?**

3 A. Yes. Under questioning from Assemblyman Ellison during the May 25, 2021,
4 meeting of the Assembly Committee on Growth and Infrastructure, Senator Brooks
5 stated:

6 Assemblyman Ellison: How long do you think it will take to get this up
7 and moving to where people are actually on the ground and doing
8 projects?

9 Senator Brooks: There is a two-part answer to that question. It starts with
10 submitting a plan and upon passage and approval, there would be a
11 certain time frame, which is defined in the bill, to submit a plan, which I
12 think is 90 days. They have an expedited review period at the PUCN to
13 have plans approved, and then the utility would start spending money
14 immediately on the electric charging infrastructure. NV Energy is
15 already spending tens if not hundreds of millions of dollars on
16 transmission, which has already been approved by the PUCN, on some
17 of the stuff we are ordering in this legislation, such as permitting issues,
18 environmental siting, acquisition, and things like that. The money is
19 already being spent. We also think the massive transmission build-out
20 will take place in the next six years. It just takes a long time to do these
21 things. The most important component of this bill is that transmission
22 build-out. That transmission build-out would facilitate a minimum of \$6
23 billion of investment in our state on renewable energy projects in these
24 predesignated zones [page 5, Exhibit C]. The second something like this
25 is announced, the land acquisition starts taking place, the interconnection
26 agreement starts, substations are planned to be built. The second this gets
27 approval, the other money— money that is not even part of the economic
28 benefit of this line—billions and billions of dollars and the tens of
thousands of jobs come with that, starts the day this gets approved. They
are already chomping at the bit and looking at ways to get into Nevada
so they can be part of this new energy economy. I would say,
immediately. Some of it is already being spent today without this bill
even being passed yet because some of these processes are already
ongoing.

Assemblyman Ellison: I appreciate that. That is what it is going to take—
getting boots on the ground and getting things moving. I think we have
one of the best apprenticeship programs in the country here in Nevada.
The problem is, it takes a while to get that many people and get them
trained. I own several businesses, and the biggest problem I see is
workforce. I know there are apprenticeship programs out there, but
unless the government steps up and tells people they have to get back to
work, I do not know how they are going to do this. I know Mr. Brown
could probably answer some of these questions. We have to do
something as a state to get these people away from the TV and back in
the workforce. I know that sounds cruel, but there are no people to hire.
You cannot find laborers or qualified people. We are having a big
problem throughout the entire state, not only in Las Vegas, but also in
the rurals. It is hard to find a workforce. I am hoping the Office of the

1 Governor has a plan to move forward to try to get these people back to
2 work. That is also what is going to stimulate the economy. These are
3 great jobs to get people to work, but we have to get them. I know the
4 unions are boosting up the apprenticeship programs and other things, but
5 we still have to have people now who are going to be doing this. NV
6 Energy should already have the right, based on their system, to build
7 their grid. All they have to do is get approval from the PUCN in some of
8 these areas. Right now, they could be moving. They have more power
9 than most of these people as far as moving some of the transmission lines
10 out there now. Is that not true?

11 Senator Brooks: That is correct. If you look at the bright red line on this
12 slide [page 5, Exhibit C], that is already existing. If you look at the
13 western piece, NV Energy already has approval to do that. This bill
14 allows for some of the expansions, like tying from the west across central
15 Nevada. This creates the framework for the New Energy Industry Task
16 Force, but it allows for some substation build-out along the way,
17 connecting to loads, and things like that. You are absolutely right. They
18 are already working on the Greenlink West piece of this and it is
19 something that has already been approved by the PUCN. This augments
20 that, making it into a more comprehensive plan to look at the whole
21 region of Nevada and how we tie it all together and open all these
22 opportunities instead of a little bit here and a little bit there based upon
23 the way the planning processes currently work. To talk about the wages
24 and creating this need, you heard Ms. Mujica talk about opening an
25 opportunity for a class of 100 electrical workers and having over 2,000
26 applicants. We have the certainty that there are going to be thousands of
27 jobs out there, then we can just ramp up the apprenticeship programs
28 across the entire state, open these classes, and start recruiting folks.
There are programs I used to work on at Nevada Partners, Inc., for
instance, where we went into historically underserved communities and
tried to connect opportunities from those folks to the apprenticeship
program. What hurdles are in the way? Is it one year of algebra you need?
Is it child care you need? Is it a GED you need? How do we connect that
person with that career opportunity through apprenticeship? We are
working with the College of Southern Nevada and organizations like
Nevada Partners, workforce organizations in the state, and the
Department of Employment, Training and Rehabilitation, to try to create
all of those pathways to get folks there. We say if you are going to get
these tax abatements—and these tax abatements make it worthwhile to
come to our state and invest billions of dollars in capital—you must pay
175 percent of the average statewide hourly wage. That is a good wage
and that will motivate people to get into those jobs, work themselves
through those apprenticeship programs, and get into those trades. This is
a ten-year plan, but it starts tomorrow.⁵¹

⁵¹ See Attachment AED-15, Minutes of the Meeting of the Assembly Committee on Growth and Infrastructure at 24-26, May 25, 2021.

1 **42. Q. Please describe the impact on NV Energy’s ability to comply with NRS**
2 **704.79877(1) if the Greenlink West project is not constructed.**

3 A. The purpose and objectives of the TICEEP as listed in NRS 704. 79877(1) are to: (a)
4 assure a reliable and resilient transmission network in Nevada to serve existing and
5 projected transmission service obligations, (b) assist NV Energy in meeting the
6 Nevada’s renewable portfolio standard and greenhouse gas emissions reduction goals,
7 (c) promote economic development, (d) expand transmission access to renewable
8 energy zones designated by the Commission pursuant to NRS 704.741(2) to promote
9 the development and use of renewable energy resources in Nevada, (e) use federally
10 granted rights of way within the designated renewable energy transmission corridors
11 before they expire, (f) support the development of regional transmission
12 interconnections that may be required for Nevada to cost-effectively achieve the goals
13 for the reduction of greenhouse gas emissions set forth in NRS 455B.380 and NRS
14 704.7829 and for NV Energy to fully participate in a future organized regional
15 wholesale electricity market. In its response to Staff DR 161, NV Energy stated that
16 not constructing the Greenlink West project and just constructing the Greenlink North
17 and Harry Allen to Northwest 525 kV transmission lines will not satisfy each of the
18 TICEEP criteria that must be met in NRS 704.79877(1)(a) through (f) and provided
19 the following reasons why:

- 20 (a) Assure a reliable and resilient transmission network in this State to
21 serve the existing and currently projected transmission service
22 obligations of the electric utility would be greatly reduces since there
23 would only be one interconnection between northern and southern
24 Nevada rather than two as planned for by constructing both Greenlink
25 West and Greenlink North. The northern Nevada system import limit
26 would be reduced, the total transfer capacity (TTC) between northern
27 and southern Nevada would be reduced and ability for one system to
28 back up the other system is reduced. Existing requests for northern
Nevada system import capacity cannot be accommodated without
Greenlink West.
(b) Assist the utility in meeting the portfolio standard established by NRS
704.7821 and the goals for the reduction of greenhouse gas emissions set
forth in NRS 445B.380 and 704.7820 would be reduced. Major
renewable energy resource zones are located near the proposed
Armargosa and Esmeralda substations on Greenlink West. The majority
of renewable generator interconnection requests that NV Energy has

1 received on the Greenlink project are at these two substations. Without
2 Greenlink West these interconnections could not be accommodated. The
3 designated network resource for Armargosa Solar also could not be
4 accommodated. The projected greenhouse gas would likely increase.
5 The northern Nevada system import limit would be reduced, and the
6 TTC between northern and southern Nevada would be reduced. This
7 would reduce the ability to integrate renewable energy resources and
8 jointly dispatch the northern and southern systems to reduce greenhouse
9 gas emissions.

10 (c) Promote economic development in this State, including, without
11 limitation, by creating jobs, expanding the tax base or providing other
12 economic benefits would also be reduced since the investment in
13 transmission facilities is reduced and the transmission facilities are less
14 integrated.

15 (d) Expand transmission access to renewable energy zones designated by
16 the Commission pursuant to subsection 2 of NRS 704.741 to promote
17 the development and use of renewable energy resources in this State
18 would be reduced. Major renewable energy resource zones are located
19 near the proposed Armargosa and Esmeralda substations on Greenlink
20 west. The majority of renewable generator interconnection requests that
21 NV Energy has received on the Greenlink project are at these two
22 substations. Without Greenlink West these interconnections could not
23 be accommodated. The designated network resource for Armargosa
24 Solar also could not be accommodated.

25 (e) Use federally granted rights-of-way within designated renewable
26 energy transmission corridors before the expiration of such rights-of-
27 way is reduced. BLM permitting for Greenlink West is nearly completed
28 and the notice to proceed is expected to be issued in December 2024. If
Greenlink West is not constructed this federally granted rights-of-way
will not be used.

(f) Support the development of regional transmission interconnections
that may be required for: (1) This State to cost-effectively achieve the
goals for the reduction of greenhouse gas emissions set forth in NRS
445B.380 and 704.7820; and (2) The electric utility to participate fully
in any future organized competitive regional wholesale electricity
market on the Western Interconnection. Greenlink West does not
directly connect to other states, but it is needed to support the
development of regional transmission interconnections. It increases the
TTC between northern and southern Nevada which allows for the
development of regional transmission interconnections that may be
required for this State to cost-effectively achieve the goals for the
reduction of greenhouse gas emissions and to participate fully in any
future organized competitive regional wholesale electricity market.⁵²

23 **43. Q. Please describe the effect on NV Energy's ability to comply with NRS**
24 **704.79877(2)(a) if the Greenlink West project is not constructed.**

25 A. NRS 704.79877(2)(a) mandates the construction of high-voltage transmission
26 infrastructure interconnecting northwest and northeast Nevada that increases the
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⁵² See Attachment AED-16, NV Energy's response to Staff DR 161.

1 transmission import capacity of northern Nevada by not less than 800 MW. NV
2 Energy stated that without the Greenlink West project, the Greenlink North project
3 increases the transmission import capacity of northern Nevada by only 175 MW; far
4 less than the required 800 MW capacity stated in NRS 704.79877(2)(a).⁵³ As such,
5 the construction of the Greenlink West project was implicitly embedded in the 800
6 MW import capacity number, meaning that in order to achieve the capacity mandates
7 of the TICEEP, the Greenlink West project must be constructed.

8 **44. Q. Please expand on the impact on NV Energy's ability to comply with NRS**
9 **704.79877(4) if the Greenlink West project is not constructed.**

10 A. NRS 704.79877(4) requires the TICEEP to include an evaluation of the impact that the
11 implementation of the TICEEP will have on: (a) NV Energy's transmission system
12 reliability; (b) NV Energy's transmission system resiliency; (c) the development and
13 use of renewable energy in Nevada; (d) the 20-year economic activity and economic
14 development in Nevada; (e) NV Energy's projected carbon dioxide emissions from the
15 generation and purchase of electricity; (f) NV Energy's ability to diversify its supply
16 portfolio by including larger amounts of geothermal and hydro generation; (g) NV
17 Energy's ability reliably integrate into its supply portfolio larger amounts of electricity
18 from variable renewable energy resources; (h) and (i) NV Energy's ability reduce its
19 energy supply costs by selling and buying electricity to and from other states; (j) NV
20 Energy's provision of open access transmission service; (k) NV Energy's ability to
21 accommodate access to renewable energy resources for customers who want to
22 become net-zero carbon; (l) development of regional transmission interconnections or
23 for NV Energy to participate fully in any future regional wholesale electricity market;
24 (m) the rates charged to NV Energy's bundled retail customers; and (n) the financial
25 risk to NV Energy's customers. In its response to Staff DR 160, NV Energy stated
26 that not constructing the Greenlink West project and just constructing the Greenlink
27

28

⁵³ See Attachment AED-17, NV Energy's responses to Staff DRs 128 and 159.

1 North and Harry Allen to Northwest 525 kV transmission lines impacts its ability to
2 satisfy the requirements in NRS 704.79877(4)(a) through (m) and provided the
3 following explanation:

4
5 Constructing the Greenlink North and Harry Allen to Northwest 525 kV
6 transmission lines as standalone projects, i.e., not constructing the
7 Greenlink West transmission line, affects, changes, or otherwise impacts
8 the Transmission Infrastructure for a Clean Energy Economy Plan and/or
9 the criteria listed in NRS 704.79877(4) as follows:

10 (a) The reliability of the transmission network of the utility would be
11 greatly reduced since there would only be one interconnection between
12 northern and southern Nevada rather than two as planned for by
13 constructing both Greenlink West and Greenlink North.

14 (b) The resilience of the transmission network of the utility, including,
15 without limitation, the ability of the transmission network to withstand
16 natural or manmade events that could otherwise disrupt the provision of
17 electric service in this State would also be reduced. There would only
18 be one interconnection between northern and southern Nevada, the
19 northern Nevada system import limit would be reduced, the total transfer
20 capacity (TTC) between northern and southern Nevada would be
21 reduced and ability for one system to back up the other system is reduced.

22 (c) The development and use of renewable energy resources in this State
23 would be reduced. Major renewable energy resource zones are located
24 near the proposed Armargosa and Esmeralda substations on Greenlink
25 west. The majority of renewable generator interconnection requests that
26 NV Energy has received on the Greenlink project are at these two
27 substations. Without Greenlink West, these interconnections could not
28 be accommodated. The designated network resource for Armargosa
Solar also could not be accommodated.

(d) Economic activity and economic development in this State over a
period of not less than 20 years from the date of the plan, including,
without limitation, capital investments, the direct or indirect creation of
jobs and additions to the tax base of this State would also be reduced
since the investment in transmission facilities is reduced and the
transmission facilities are less integrated.

(e) The projected carbon dioxide emissions of the utility resulting from
the generation of electricity, including, without limitation, carbon
dioxide emissions from the generation of electricity that is purchased by
the electric utility would likely increase. The northern Nevada system
import limit would be reduced, and the TTC between northern and
southern Nevada would be reduced. This would reduce the ability to
integrate renewable energy resources and jointly dispatch the northern
and southern systems to reduce carbon dioxide emissions.

(f) The ability of the utility to diversify its supply portfolio of renewable
energy resources by including larger amounts of geothermal energy
generation and hydrogeneration would likely be reduced. Currently,
there are no geothermal energy generation and hydrogeneration
interconnection requests along Greenlink West. However, the reduction
in the northern Nevada system import limit and the TTC between
northern and southern Nevada would likely reduce the ability to access
these resources and transfer them between northern and southern
Nevada.

1 (g) The ability of the utility to reliably integrate into its supply portfolio
2 larger amounts of electricity from variable renewable energy resources,
3 including, without limitation, solar and wind energy resources would be
4 reduced. The ability to transfer power between northern and southern
5 Nevada and between adjacent balancing authority area (BAA) is critical
6 to the ability follow changes in the output of larger amounts of electricity
7 from variable renewable energy resources. Without Greenlink West,
8 these transfers cannot be accommodated.

9 (h) The ability of the utility to reduce its energy supply costs by selling
10 to other states electricity generated in this State from renewable energy
11 during periods when the utility's supply of electricity exceeds the
12 demand for electricity by the customers of the utility would be reduced.
13 Greenlink West does not directly connect to other states. However, it
14 increases the TTC between northern and southern Nevada which allows
15 for greater sales of electricity generated in this State from renewable
16 energy during periods when the utility's supply of electricity exceeds the
17 demand for electricity.

18 (i) The ability of the utility to reduce its energy supply costs by
19 purchasing electricity generated in other states from renewable energy
20 during periods when the demand for electricity by the customers of the
21 utility exceeds the availability of electricity from renewable generation
22 in this State would be reduced. Greenlink West does not directly connect
23 to other states. However, it increases the TTC between northern and
24 southern Nevada which allows for greater purchases of electricity
25 generated in other states.

26 (j) The utility's provision of open access to interstate and intrastate
27 transmission services, in accordance with the utility's open access
28 transmission tariff, to other persons in this State using the utility's
transmission network, including, without limitation, eligible customers,
as defined in NRS 704B.080, and providers of new electric resources, as
defined in NRS 704B.130, who are or intend to become customers of the
utility's interstate transmission services would be reduced. Existing
requests for northern Nevada system import capacity cannot be
accommodated without Greenlink West.

(k) The ability of the utility to accommodate requests for access to
renewable energy resources that will allow customers who want to
acquire all of their energy from zero carbon dioxide emission resources
to do so will be reduced. Major renewable energy resource zones are
located near the proposed Armargosa and Esmeralda substations on
Greenlink west. The majority of renewable generator interconnection
requests that NV Energy has received on the Greenlink project are at
these two substations. Without Greenlink West, these interconnections
could not be accommodated

(l) The development of regional transmission interconnections that may
be required for this State to cost-effectively achieve the goals for the
reduction of greenhouse gas emissions set forth in NRS 445B.380 and
704.7820 or for the electric utility to participate fully in any future
organized competitive regional wholesale electricity market on the
Western Interconnection utility would be reduced. Greenlink West does
not directly connect to other states. However, it increases the TTC
between northern and southern Nevada which allows for the
development of regional transmission interconnections that may be
required for this State to cost-effectively achieve the goals for the
reduction of greenhouse gas emissions and to participate fully in any
future organized competitive regional wholesale electricity market.

1 (m) The rates charged to the bundled retail customers of the utility may
2 increase because the northern Nevada system import limit would be
3 reduced, and the TTC between northern and southern Nevada would be
4 reduced. This would reduce the ability to integrate renewable energy
5 resources and jointly dispatch the northern and southern systems.

6 (n) The financial risk to the customers of the utility would increase
7 because transmission system obligations under the OATT could not be
8 met. Also, the northern Nevada system import limit would be reduced,
9 and the TTC between northern and southern Nevada would be reduced.
10 This would reduce the ability to integrate renewable energy resources
11 and jointly dispatch the northern and southern systems.⁵⁴

12 **45. Q. Does NV Energy agree that the TICEEP requires the construction of the
13 Greenlink North project?**

14 A. No. NV Energy states that NRS 704.79877 requires it to file the TICEEP on or before
15 September 21, 2021, but does not require it to construct and place in-service any
16 component.⁵⁵ NV Energy stated that it has complied with the requirements in NRS
17 704.79877 by timely filing the TICEEP in Docket No. 21-06001.

18 **46. Q. Since NV Energy stated that NRS 704.79877 does not require it to construct and
19 place in-service any component by the date set forth in statute, did NV Energy
20 opine on whether the Commission can order it to finish permitting the Greenlink
21 North project but delay the in-service date until 2031 or later as the Commission
22 previously ordered in Docket No. 20-07023?**

23 A. During discovery, NV Energy stated that the Commission's Order in Docket No. 21-
24 06001 approved the construction of the Greenlink North project with a planned in-
25 service date by December 31, 2028, and that an intentionally delayed in-service date
26 of 2031 or later would be contrary to the Commission's Order.^{56,57}

27 ⁵⁴ See Attachment AED-18, NV Energy's response to Staff DR 160.

28 ⁵⁵ See Attachment AED-19, NV Energy's response to Staff DR 355.

⁵⁶ See Attachment AED-20, NV Energy's response to Staff DR 394.

⁵⁷ If the Commission somehow agrees with NV Energy's position that NRS 704.79877 does not require that the Greenlink North project be placed into service no later than December 31, 2028, and the only requirement to place the project into service no later than December 31, 2028, is the Commission's Order, then perhaps the Commission should consider modifying its Order to delay the in-service date of the Greenlink North project, so that NV Energy does not need to incur any unnecessary costs associated with a compressed schedule that requires it to place the project into service by December 31, 2028.

1 47. Q. Do you agree with NV Energy?

2 A. Absolutely not, and this is probably the most important issue at stake in this IRP
3 proceeding. NV Energy is attempting to rewrite history and change a series of events
4 for which all parties, including the Commission, know exactly what occurred. In fact,
5 NV Energy's response to Staff DRs 355 and 394 are absurd and inconsistent with its
6 own previous statements. Although I am not an attorney and I am not offering a legal
7 opinion, the plain language of NRS 704.79877(1) clearly requires NV Energy to file
8 the TICEEP, which ***sets forth a plan for the construction*** of the Greenlink North
9 Project and the Harry Allen to Northwest 525 kV transmission line ***that will be placed***
10 ***into service not later than December 31, 2028***.

11 48. Q. Does the legislative history of SB 448 provide any insights into the Nevada
12 Legislature's intent when promulgating SB 448?

13 A. Yes. In the May 25, 2021, meeting of the Assembly Committee on Growth and
14 Infrastructure, while introducing SB 448, Senator Chris Brooks stated:

15 ***This bill directs the investment in transmission lines across western***
16 ***Nevada and central Nevada to connect three large energy hubs that we***
17 ***have in the state of Nevada.*** In the eastern part of Nevada, we have
18 Robinson Summit Substation. In the western part of Nevada, we have
19 Fort Churchill Generating Station, not too far from here. In southern
20 Nevada, we have one of the most busy and active energy hubs in the
entire United States right outside of Las Vegas, with the Mead,
Marketplace, and Eldorado Substations. A lot of that infrastructure was
put in place almost 100 years ago by the Hoover Dam.⁵⁸

21 ...
22 We made a few regulatory cleanup provisions. One of them was
23 regarding some holdover language from when Sierra Pacific Power
24 Company and Nevada Power merged to become NV Energy. We made
25 a few tweaks there. ***Also, as we are moving forward with investments in***
26 ***the future and we are directing the utility to make sizeable investments***
27 ***in Nevada, we want to make sure, when they are recovering the rates***
on that investment, they are doing it in such a manner that benefits the
ratepayers of the state of Nevada the most. I think by directing a private
company to bring billions of dollars of capital into the state and deploy
it, a rate of return is absolutely something that should be allowable and
encouraged. At the same time, we want to make sure there is some

28 ⁵⁸ See Attachment AED-15, Minutes of the Meeting of the Assembly Committee on Growth and Infrastructure at 5, May 25, 2021 (emphasis added).

oversight and accountability as they are doing that to make sure Nevadans pay the least amount they need to.⁵⁹

Senator Brooks clearly states that the Nevada Legislature is directing NV Energy to invest its capital in Nevada to build out Nevada's transmission infrastructure, not just file a TICEEP plan.

49. Q. Is NV Energy's response to Staff DR 355 inconsistent with its previous statements and filings?

A. Yes, it is. In stipulating NV Energy's TICEEP in Docket No. 21-06001, all parties, including NV Energy agreed to designate the Greenlink North line and the Harry Allen to Northwest 525 transmission line as critical facilities because **construction of** the projects fulfilled a **specific statutory mandate** pursuant to NAC 704.9484(2)(d).⁶⁰ Furthermore, NV Energy stated that there is a mandate in SB 448 because it contemplates the construction of a facility that meets the requirements of the TICEEP.⁶¹ NV Energy previously stated that Section 21 of SB 448 mandated that the TICEEP submitted by NV Energy must ensure a reliable and resilient transmission network that can serve existing and projected transmission service obligations.⁶² Since NV Energy's TICEEP relies on the Greenlink Nevada Project to ensure a reliable and resilient transmission network that can serve existing and projected transmission service obligations, it must construct the Greenlink Nevada Project.

Moreover, if construction of the Greenlink Nevada Project was not legislatively mandated in SB 448, as stated by NV Energy, then both the Greenlink North and Harry Allen to Northwest 525 kV transmission line projects cannot be designated as critical facilities, and therefore are not eligible for incentives, as the stipulation in Docket No. 21-06001 only designated these components as critical facilities because all the parties (including NV Energy) agreed the projects were

⁵⁹ *Id.* 7.

⁶⁰ Docket No. 21-06001, Stipulation at 6, January 5, 2022.

⁶¹ FERC Docket No. EL22-73-000, Motion For Leave to Answer and Answer of Nevada Power Company and Sierra Pacific Power Company at 11, August 16, 2022.

⁶² FERC Docket No. EL22-73-000, Petition Appendix A, Direct Testimony of Shahzad Lateef at 26.

1 **legislatively mandated**. Furthermore, NV Energy has presented no evidence in this
2 filing (unlike Greenlink West) to support a critical facility designation for Greenlink
3 North and the Harry Allen to Northwest transmission line but is instead relying on the
4 previous designation which was solely based on construction of the TICEEP being
5 mandated by the legislature.

6 **50. Q. Is NV Energy requesting Commission approval to modify the Greenlink Nevada**
7 **Project?**

8 A. No. NV Energy is not modifying the Greenlink Nevada Project and only is providing
9 an updated cost estimate/budget for Commission approval.

10 **51. Q. Has NV Energy provided any information regarding what the cost to cancel the**
11 **Greenlink Nevada Project would be?**

12 A. NV Energy stated that it was **not able to provide a cost estimate** for cancelling the
13 Greenlink Nevada Project because work on the Greenlink Nevada Project is invoiced
14 based on completion of milestones and will vary based upon the extent of the
15 Commission's denial and timing of completing all work and receiving final invoices
16 for work performed.⁶³ NV Energy has not paused development of the Greenlink
17 Nevada Project, costs are continuing to be incurred today, and will continue to be
18 incurred even after the Commission issues an order in this Docket. An important
19 question that the Commission needs to ask itself is: even if the Greenlink Nevada
20 Project were not mandated by statute, how can the Commission make a decision to
21 authorize NV Energy to continue with or to cancel the Greenlink Nevada Project if
22 NV Energy cannot even tell the Commission the cost of canceling the project? A cost
23 benefit analysis cannot be performed without knowing the full extent of the
24 consequences of moving forward versus cancelling the project.

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⁶³ See Attachment AED-21, NV Energy's response to Staff DR 184.

1 **Greenlink Nevada Project Costs**

2 **52. Q. What is NV Energy’s current cost estimate for the Greenlink Nevada Project?**

3 A. NV Energy’s updated May 2024 cost estimate for the Greenlink Nevada Project is
4 \$4.239 billion. It is an increase of \$2.169 billion, approximately **105 percent**, from the
5 \$2.07 billion cost estimate NV Energy originally provided in its July 20, 2020, filing
6 in Docket No. 20-07023. It is an increase of \$1.775 billion, or 71 percent, from the
7 \$2.484 billion cost estimate NV Energy claims the Commission approved, and it is an
8 increase of \$1.312 billion, or approximately 45 percent, from the \$2.927 billion cost
9 estimate provided by NV Energy in Docket No. 23-08015.

10 **53. Q. What reasons did NV Energy provide for the \$1.755 billion cost increase?**

11 A. NV Energy stated that approximately \$1.11 billion of the \$1.755 billion cost increase
12 includes: (1) \$416 million for contingency, (2) \$340.8 million escalation in costs, (3)
13 \$97.4 million for adding the Ft. Churchill to Comstock Meadows #2 345 kV
14 transmission line construction costs, (4) \$124 million due to the BLM requiring the
15 use of H-Frame structures for an additional 160 miles to mitigate the impact to Desert
16 Tortoise and Sage Grouse habitats, (5) \$30.7 million for increased environmental
17 mitigation efforts required by BLM, and (6) \$101 million for sales and use taxes that
18 was not included in the original cost estimate.⁶⁴ NV Energy did not provide a specific
19 reason for the remaining approximately \$645 million of the \$1.755 billion cost
20 increase, other than stating that inflation and development of detailed engineering
21 design and changes to the scope of the project compared to what was the originally
22 estimated contributed to the increase in costs.⁶⁵

23 **54. Q. Please explain NV Energy’s reasoning for including a \$340 million escalation.**

24 A. NV Energy stated that the \$340 million escalation is based upon executed contracts for
25 labor and materials from 2024 through the anticipated completion of the Greenlink
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28 ⁶⁴ Direct Testimony of Shahzad Lateef at 4-6.

⁶⁵ *Id.*

1 Nevada Project in December 2028.⁶⁶ For construction labor, NV Energy escalated
2 construction labor rates to reflect provisions for increases in contractual labor rates per
3 its contracts with the International Brotherhood of Electric Workers (“IBEW”) Local
4 396 and Local 1245.⁶⁷ For materials, NV Energy stated that its contracts for materials
5 are tied to an agreed-upon and specific commodity index to prevent vendors from
6 including commodity volatility risk in their pricing.⁶⁸ However, because the costs for
7 commodities (e.g., steel, copper, aluminum, fuel) are not fixed, any increases or
8 decreases in a commodity index would be reflected as an increase or a decrease in the
9 overall contract cost. Therefore, NV Energy applied 3.5 percent per year escalation
10 rate to all commodity indices in its cost estimate to account for the variability
11 associated with its contracting practices.⁶⁹

12 **55. Q. NV Energy stated that inclusion of escalation in the total cost provides a better**
13 **estimate of the final project costs. With the contingency and escalation NV**
14 **Energy included in its Greenlink Nevada Project cost estimate are there still cost**
15 **risks?**

16 A. Yes. Even though NV Energy has attempted to include everything but the kitchen
17 sink into its Greenlink Nevada cost estimate by including approximately \$757 million,
18 or 17.9 percent, of the \$4.239 total cost estimate to account for future known and
19 unknown costs, the Greenlink Nevada Project runs the risk of exceeding even the
20 updated cost estimate. Since the Greenlink North project is currently in the BLM
21 permitting process, any delays in the permitting process or any additional measures to
22 mitigate potential environmental concerns that are necessary to meet BLM’s
23 permitting requirements could have a significant effect on the overall cost of the
24 project.⁷⁰ If the BLM permitting delays are extensive, it will require NV Energy to

26 ⁶⁶ Supply Side Plan Narrative, Vol. at 125 of 193.

27 ⁶⁷ *Id.*

28 ⁶⁸ Direct Testimony of Shahzad Lateef at 4-5.

⁶⁹ *Id.* at 6-7.

⁷⁰ Staff has previously expressed concerns regarding NV Energy’s ability to permit the Greenlink North project. *See* Docket No. 20-07023, Exhibit 3303 at 10 (Direct Testimony of Paul R. Maguire).

1 compress the construction schedule further to meet the aggressive statutorily required
2 in-service dates and result in increased project costs. Additionally, any growth to a
3 commodity index above 3.5 percent per year would also increase the cost of the
4 project.

5 Furthermore, NV Energy stated it had decoupled the construction of the
6 transmission lines, telecommunications, and substations on the Greenlink Nevada
7 Project as separate work scopes.⁷¹ This would require NV Energy to execute separate
8 construction agreements for each Greenlink Nevada Project component. After
9 receiving proposals for the construction of the each of the major Greenlink Nevada
10 Project facilities from two qualified contractors, NV Energy stated that in order to
11 achieve higher construction efficiency and the lowest possible cost to construct the
12 Greenlink Nevada Project, it requested and received proposals from the two qualified
13 contractors for the combined construction of the facilities by the same contractor.⁷²
14 NV Energy has executed an agreement with an engineering, procurement, and
15 construction (“EPC”) contractor for the combined construction of the Greenlink
16 Nevada Project, resulting in a savings of \$300 million.⁷³ However, instead of
17 lowering the overall project cost by \$300 million, NV Energy is treating this \$300
18 million savings as a contingency reserve to be used as an offset to additional
19 anticipated significant costs increases that were not accounted for in the \$4.239 billion
20 cost estimate. This evidence clearly shows that NV Energy has no idea what the final
21 cost to construct the Greenlink Nevada Project will be.⁷⁴
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27 ⁷¹ Direct Testimony of Shahzad Lateef at 10.

28 ⁷² *Id.* See also Supply Side Plan Narrative, Vol. 8 at 127 of 393.

⁷³ See Attachment AED-22, NV Energy’s supplemental response to Staff 295

⁷⁴ *Id.*

1 **56. Q. In Q&A 20 of his Direct Testimony, Mr. Tsoukalis states that using an apples-to-**
2 **apples analysis of how the estimated costs of the Greenlink Nevada project have**
3 **changed since 2021, the estimated costs of the project have increased from \$1.987**
4 **billion to \$3.129 billion, or approximately 16 percent per year from 2021 to 2024.**
5 **Do you agree with Mr. Tsoukalis' analysis?**

6 A. No. Mr. Tsoukalis' analysis is a red herring created by NV Energy to detract from the
7 fact that NV Energy appears to have mismanaged the Greenlink Nevada Project and
8 woefully underestimated the costs and should be disregarded for three reasons. First,
9 Mr. Tsoukalis claims that the contingency included in the original 2021 cost estimate
10 was \$497 million, or approximately 25 percent of the cost to construct the project.⁷⁵ It
11 appears that Mr. Tsoukalis inaccurately calculated the contingency amount because
12 NV Energy only included a 20 percent contingency factor in the original cost
13 estimate.⁷⁶ A 20 percent contingency equates to approximately \$414 million and
14 subtracting \$414 million from \$2.484 billion results in a cost of \$2.07 billion.

15 Second, Mr. Tsoukalis claimed that the Greenlink Nevada Project scope
16 expanded and that scope expansion resulted in a \$252 million increase from the
17 original 2021 cost estimate.⁷⁷ However, the only scope increase from the 2021 cost
18 estimate is NV Energy's request to construct the Ft. Churchill to Comstock Meadows
19 #2 345 kV transmission line at an incremental cost of \$97.4 million as that project was
20 not included in NV Energy's original Greenlink Nevada Project proposed in Docket
21 No. 20-07023. The remaining \$154.6 million of costs are a result of design changes or
22 mitigation efforts required to meet BLM's permitting requirements and because risks
23 associated with permitting the Greenlink Nevada Project were contemplated in the 20
24 percent contingency NV Energy applied to its 2021 cost estimate, the \$154.6 million
25 in increased costs should not be considered expanded scope.

27 ⁷⁵ The \$496 million contingency is calculated as the difference between the \$2.484 billion and the \$1.987 billion
28 presented in Figure PF-6 in the Direct Testimony of John Tsoukalis at 24.

⁷⁶ Docket No. 20-07023, Supplemental Direct Testimony of Sachin Verma at 10-11.

⁷⁷ Direct Testimony of John Tsoukalis at 23.

1 Third, Mr. Tsoukalis states that the 2024 cost estimate includes sales tax and
2 escalation costs that were not included in the 2021 cost estimate, which added \$442
3 million in costs, that he then removes in his “apples-to-apples” comparison.⁷⁸
4 However, the sales tax and escalations costs should not be removed just because NV
5 Energy did not include those types of costs in its 2021 cost estimate. In fact, it begs
6 the question, why didn’t NV Energy include those types of costs originally? Did NV
7 Energy’s project team not know sales tax is an actual project cost? Frankly, it is
8 concerning that NV Energy did not include or account for the sales tax as a project
9 cost in the original cost estimate, especially since NV Energy was touting the local
10 economic benefits associated with paying sales taxes on the project were included in
11 the present worth of societal cost figures.

12 Adding back in the \$596.6 million in costs Mr. Tsoukalis erroneously removed
13 results in an approximate \$3.726 billion cost estimate. In a true apples-to-apples
14 comparison, the \$3.726 billion 2024 cost estimate is a \$1.656 billion cost increase
15 from the \$2.07 billion 2021 cost estimate. Therefore, NV Energy’s 2021 GreenLink
16 Nevada Project cost estimate increased by approximately 23 percent per year between
17 2021 and 2024; which is higher than the approximately 17 percent per year growth
18 rate of the Bureau of Labor Statistics’ Producer Price Indices provided by Mr.
19 Tsoukalis.

20 **57. Q. Does Mr. Tsoukalis mention or discuss the \$2.927 billion Greenlink Nevada**
21 **Project cost estimate provided by NV Energy in Docket No. 23-08015?**

22 A. No. Mr. Tsoukalis seems to intentionally disregard the July 20, 2023, Greenlink
23 Nevada Project cost estimate of \$2.927 billion that was provided by NV Energy in
24 Docket No. 23-08015. From July 20, 2023, to the May 31, 2024 filing date of this
25 Docket, a period of 10 months, the Greenlink Nevada Project cost estimate increased
26 \$1.312 billion, or approximately 45 percent, from the \$2.927 billion cost estimate
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⁷⁸ *Id.*

1 provided by NV Energy in Docket No. 23-08015. NV Energy has yet to explain how
2 the Greenlink Nevada Project costs have significantly increased well over the inflation
3 rate in just 10 months.

4 **58. Q. Can you explain what you mean when you say that it appears NV Energy has**
5 **mismanaged the Greenlink Nevada Project?**

6 A. Yes. First, as we now know, NV Energy's original Greenlink Nevada Project budget
7 was incomplete and flawed. Second, NV Energy's Greenlink Nevada Project schedule
8 is too aggressive and was unrealistic. As previously explained, NV Energy's original
9 Greenlink Nevada Project schedule presented in October 2020, in Docket No. 20-
10 07023 contemplated an in-service date for the Greenlink West and Greenlink North
11 projects by December 31, 2026, and December 31, 2029, respectively. Just six months
12 later, in May 2021, NV Energy revised its Greenlink North Project schedule forward
13 to have an in-service date by December 31, 2028, and solidified that date in statute
14 through legislative action it sought. NV Energy compressed the schedule by one year
15 without any explanation as to why or how NV Energy would be able to achieve the
16 new in-service date, and NV Energy did not update the original cost estimate to reflect
17 the compressed schedule. NV Energy employee Carolyn Barbash informed the
18 Nevada Legislature that the revised Greenlink Nevada Project schedule is the most
19 aggressive schedule NV Energy has had on a transmission project in the 30 to 32 years
20 that she had been employed by NV Energy.⁷⁹ However, at that same time, the world
21 was experiencing supply chain issues due to the global COVID-19 pandemic,
22 disrupting supply and causing the inflation rate to skyrocket to levels the United States
23 had not experienced in over 40 years, making NV Energy's decision to compress the
24 Greenlink Nevada Project inexplicable and unreasonable, especially so by hard coding
25 the compressed schedule in statute. NV Energy is not prudently managing the
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27 ⁷⁹ See Attachment AED-23, the minutes of the January 12, 2022, Nevada Legislature Joint Interim Standing
28 Committee on Growth and Infrastructure at 32. If the Greenlink Nevada Project schedule was the most aggressive
schedule in Ms. Barbash's 30 plus years' experience under normal conditions, it was unrealistic at that time given the
supply chain disruptions that occurred during the global COVID-19 pandemic.

1 Greenlink Nevada Project, and it appears that its management strategy for the
2 Greenlink Nevada Project is to maximize its shareholder profitability. NV Energy may
3 be able to complete the Greenlink Nevada Project by December 31, 2028, but there is
4 no disputing the fact that forcing the Greenlink North in-service date by the arbitrary
5 date of December 31, 2028, and maintaining the Greenlink West in-service date by
6 May 31, 2027, unnecessarily increased the costs of the project.

7 **59. Q. Does the TICEEP contain any statutory provisions related to the total cost of the**
8 **Greenlink Nevada Project?**

9 A. No. The Nevada Legislature did not include any guidance or provisions relating to the
10 total cost of the TICEEP. However, NRS 704.79877(3) initially allocates the total cost
11 of the TICEEP between Nevada Power and Sierra using a 70/30 percent cost
12 allocation ratio, respectively. NRS 704.79877(4)(m) and (n) requires an evaluation of
13 the impact the TICEEP will have on the rates charged to the bundled retail customers
14 of NV Energy and the risk to the customers of NV Energy. NRS 704.79878(1)
15 requires NV Energy to utilize federal tax incentives or funding to mitigate costs. NRS
16 704.79878(2) requires NV Energy, if the increase to its total revenue requirement is
17 greater than 10 percent when NV Energy seeks to recover the costs of the Greenlink
18 Nevada Project, to propose a rate method or mechanism to mitigate the increase but
19 allows NV Energy to recover all of its prudently and reasonably incurred costs,
20 including a return on its investment. The Legislature essentially granted NV Energy a
21 “blank check” to implement the TICEEP and construct the Greenlink Nevada Project.
22 Of course, Staff and the Commission will review the costs of the Greenlink Nevada
23 Project in the appropriate general rate cases to ensure they are just and reasonable.

24 **60. Q. What is your recommendation regarding NV Energy’s request for continued**
25 **approval of the Greenlink Nevada Project at a budget of \$4.128 billion (PFR**
26 **Section 1(g)(xxix))?**

27 A. I recommend that the Commission find that it cannot render a prudency determination
28 regarding NV Energy’s request for continued approval of the Greenlink Nevada

1 Project listed in PFR Section 1(g)(xxix), which has a combined budget for Greenlink
2 West, Greenlink North and Common Ties of \$4.128 billion, because the Greenlink
3 Nevada Project is a legislatively mandated project.
4

5 **II. Recommendation No. 2: Deny NV Energy’s request to designate the Greenlink West**
6 **and Common Ties projects as critical facilities in PFR Section 1(j).**

7 **61. Q. Please explain the critical facility designation.**

8 A. The critical facility designation is outlined in NAC 704.9484. NAC 704.9484 states:

9 1. The Commission may, upon the request of a utility or an intervening
10 party pursuant to subsection 2 or upon its own motion, make a
11 determination as to whether to designate a facility of the utility as a
12 critical facility. Such a determination may be made in conjunction with
13 an order issued by the Commission pursuant to subsection 1 of NAC
14 704.9494 or in another proceeding on the matter.

15 2. A utility and any party granted intervener status may request that
16 the Commission designate a facility of the utility as a critical facility for
17 the purpose of:

- 18 (a) Protecting reliability;
- 19 (b) Promoting diversity of supply and demand side sources;
- 20 (c) Developing renewable energy resources;
- 21 (d) Fulfilling specific statutory mandates;
- 22 (e) Promoting retail price stability; or
- 23 (f) Any combination of paragraphs (a) to (e), inclusive.

24 ↪ Such a request must be accompanied by supporting analysis and
25 documentation.

26 3. If the Commission designates a facility as a critical facility, the
27 utility may request that incentives associated with that facility be
28 included in rates in an application to change general rates filed pursuant
to NAC 703.2201 to 703.2481, inclusive. The incentives may include,
without limitation:

- 29 (a) Earning an enhanced return on equity on the designated critical
30 facility over the life of the facility;
- 31 (b) The inclusion in the rates of construction work in progress
32 associated with the designated facility; and
- 33 (c) Designating costs incurred to construct the designated critical
34 facility in a regulatory asset account, to be recorded as a subaccount to
35 Account 182.3 (Other Regulatory Assets). The utility may recover the
36 regulatory asset pursuant to subsection 3 of NAC 704.9523.

37 Pursuant to NAC 704.9848(2), NV Energy or an intervener must request a
38 facility to be designated as critical and must support its request by analyses and
39 documentation that the facility’s purpose is to: (1) protect reliability, (2) promote
40

1 diversity of supply, (3) develop renewable energy resources, (4) fulfill specific
2 statutory mandates, (5) promoting retail price stability, or any combination thereof.

3 **62. Q. Please describe NV Energy's request to designate the Greenlink West Project and**
4 **Common Ties as critical facilities.**

5 A. Attachment AED-7, NV Energy's supplemental response to Staff DR 172 provides a
6 listing of each transmission infrastructure that NV Energy is requesting the
7 Commission to designate as critical facilities pursuant to NAC 704.9484.

8 In the response, NV Energy states that it is requesting critical facilities
9 designation for the Greenlink West project and the Common Ties so that there is
10 consistent treatment on the overall Greenlink Nevada Project and allow NV Energy to
11 utilize the incentives to support its financial strength.⁸⁰ NV Energy states that the
12 Greenlink West project and the Common Ties qualify as critical facilities under NAC
13 704.9484(2) because the projects: (1) protect reliability, (2) promotes diversity of
14 supply and provides access to renewable energy resources; (3) fulfills statutory
15 mandates, and (4) promotes price stability.

16
17 **63. Q. Are the Greenlink West project and the Common Ties critical facilities?**

18 A. No. In Docket No. 20-07023, the Commission declined to designate the Greenlink
19 West project, which included the Common Ties, as a critical facilities because they
20 were considered part of normal utility planning under Nevada law, or the type of
21 planning NV Energy is required to develop triennially and update accordingly and
22 because NV Energy stated that it would go forth with the Greenlink West project
23 without the critical facility designation.⁸¹

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28 ⁸⁰ Direct Testimony of Mike Behrens at 14.

⁸¹ Docket No. 20-07023, Order at 287-88, issued March 22, 2021.

1 **64. Q. Please explain why you believe that the Greenlink West project should again not**
2 **be designated as a critical facility even though you previously testified that the**
3 **Greenlink West project is required by the TICEEP.**

4 A. The Commission approved the Greenlink West project under normal resource
5 planning needs. The TICEEP was predicated upon the fact that NV Energy was
6 already constructing the Greenlink West project; the TICEEP did not change the
7 Commission's original approval of the Greenlink West project. Since the TICEEP
8 was predicated upon the Commission's approval of the Greenlink West project, one
9 can assume that the Nevada Legislature was satisfied with Commission's Order in
10 Docket No. 20-07023, including the finding that the Greenlink West project was not a
11 critical facility. If the Nevada Legislature thought the Greenlink West project was a
12 critical facility and that the Commission was wrong in not granting that designation,
13 then the Nevada Legislature could have specified that the infrastructure it was
14 mandating be built should be designated as a critical facility when promulgating SB
15 448, but it chose not to. Therefore, SB 448 appears to affirm the Commission's
16 original Greenlink West project decision. Staff witness John Brownrigg provides
17 additional testimony explaining Staff's reasoning for denying the critical facility
18 designation requests.

19 **65. Q. Will NV Energy continue to develop and construct the Greenlink West project**
20 **and Common Ties if the Commission were to deny NV Energy's request for**
21 **critical facilities?**

22 A. Yes. NV Energy stated that it intends to continue to develop and construct the
23 Greenlink West project and Common Ties even if the Commission denies NV
24 Energy's request for critical facilities.⁸²

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⁸² See Attachment AED-24, NV Energy's responses to Staff DRs 84 and 88.

1 **66. Q. What is your recommendation regarding NV Energy’s request to designate the**
2 **Greenlink West and Common Ties projects as critical facilities in PFR Section**
3 **1(j)?**

4 A. In conjunction with Staff witness John Brownrigg, I recommend that the Commission
5 deny NV Energy’s request to designate the Greenlink West and Common Ties projects
6 as critical facilities.

7
8 **III. Recommendation No. 3: Deny NV Energy’s request for CWIP in rate base accounting**
9 **treatment for the Greenlink Nevada Project (PFR Section 1(k)), and the request to**
10 **record and include the Greenlink Nevada Project depreciation expense with no carry**
11 **charge in a regulatory asset (PFR Section 1(l)).**

12 **67. Q. Why is NV Energy requesting CWIP in rate base accounting treatment and**
13 **deferral of the depreciation expense with no carry charge into a regulatory asset**
14 **for the Greenlink Nevada Project?**

15 A. NV Energy states that CWIP in rate base accounting treatment and deferring the
16 depreciation expense into a regulatory asset with no carry charges from the time the
17 Greenlink Nevada Project is placed into service will provide financial support until
18 NV Energy has the ability to recover the Greenlink Nevada Project costs in rates.⁸³

19 **68. Q. Please briefly describe NV Energy’s claim that it needs the incentives to support**
20 **its financial strength.**

21 A. NV Energy claims that designating the Greenlink West project and Common Ties as
22 critical facilities is imperative to provide appropriate financial regulatory help to avoid
23 any further credit downgrades and ensure Sierra is upgraded back to a “Baa1” credit
24 rating in the near future by ensuring that NV Energy can consistently operate at or
25 above the 18 percent funds from operations (“FFO”) to debt credit metric ratio.⁸⁴ Staff
26 witness Swetha Venkat provides further discussion regarding NV Energy’s credit
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28 ⁸³ Supply Side Plan Narrative, Vol. 8 at 137 of 393.

⁸⁴ Direct Testimony of Michael Behrens at 11.

1 metrics, financial plan, and customer rate impact analysis. Staff witness John
2 Brownrigg provides further discussion regarding NV Energy's request for financial
3 incentives on the Greenlink Nevada Project.

4 **69. Q. Does NV Energy's claimed need for financial support in order to maintain a**
5 **specific credit rating satisfy any of the required criteria under NAC 704.9484(2)**
6 **for a critical facility designation?**

7 A. No. Although I am not an attorney and I am not offering a legal opinion, NV Energy's
8 need for financial support in order to maintain a specific credit rating does not satisfy
9 any of the required criteria listed in NAC 704.9484(2). NV Energy also has
10 previously testified that the regulation does not include the financial position of the
11 utility as a criterion for critical facility designation.⁸⁵ Even if the Commission
12 determines one of the criteria does relate to the financial position of the utility, NV
13 Energy has not provided any information to ascertain how maintaining a specific
14 credit rating promotes retail price stability any better than not maintaining a specific
15 credit rating; nor has NV Energy provided any information regarding the cost to
16 ratepayers of granting NV Energy financial incentives in order to maintain the specific
17 credit rating versus allowing the consequential cost to flow through to ratepayers
18 resulting from NV Energy's credit rating being downgraded. In fact, Mr. Behrens
19 testified that NV Energy has demonstrated the ability to successfully access the debt
20 markets at competitive rates relative to industry peers with similar credit ratings and to
21 receive common equity infusions from its parent company, NV Energy, Inc.⁸⁶ I am not
22 advocating that the Commission allow NV Energy's credit rating to be downgraded,
23 but rather that we cannot know, based on the information provided in NV Energy's
24 filing, whether or not the cost to ratepayers or the stability of retail prices from
25 granting NV Energy's financial incentives will be any different than if NV Energy
26 were to receive a credit downgrade. NV Energy should be required to provide that
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28 ⁸⁵ Docket No. 23-08015, Rebuttal Testimony of Michael Behrens at 4.
⁸⁶ Direct Testimony of Mike Behrens at Q&A 13.

1 information, at a minimum, before the Commission makes a decision on NV Energy's
2 request for financial incentives.

3 **70. Q. Would NV Energy continue to develop and construct the Greenlink West project**
4 **and the Common Ties if the Commission were to deny NV Energy's request for**
5 **CWIP in rate base and to defer the depreciation expense into a regulatory asset**
6 **without carry charges?**

7 A. NV Energy did not commit to continuing development and construction of the
8 Greenlink West project and the Common Ties if the Commission were to deny NV
9 Energy's request for CWIP in rate base and to defer the depreciation expense without
10 carry charges into a regulatory asset. NV Energy stated that it would have to evaluate
11 the Commission's order before it would continue to develop and construct of all
12 elements of the Greenlink Nevada Project to ensure financial prudence.⁸⁷

13 **71. Q. Does NV Energy's statement that it would have to evaluate the continued**
14 **development and construction of the Greenlink Nevada Project if the**
15 **Commission were to deny the requested financial incentives for the Greenlink**
16 **Nevada Project contradict statements NV Energy made to the 2021 Nevada**
17 **Legislature?**

18 A. Yes. During a meeting of the Senate Committee on Growth and Infrastructure on
19 Monday, May 17, 2021, Doug Cannon, President and CEO of NV Energy, stated:

20 **This is a great example of a private-public partnership. We have a need**
21 **that exists in Nevada. The transmission system in northern Nevada is**
22 **fully constrained. No additional imports are available to come into**
23 **northern Nevada. Unless we build infrastructure like this, our ability**
24 **to support economic development down the road is limited.** A
25 transmission-only customer's ability to access the market is limited. The
26 need for this infrastructure exists today. In addition to reliability
27 concerns Senator Pickard raised, you can see that in northern and
28 southern Nevada on Slide 6, Exhibit B, we jointly dispatch generation
through one single line. If we lose that line, northern Nevada has to meet
its energy needs by itself with a constrained system. In addition, we
cannot use low-cost energy to serve southern Nevada at opportune times.
We can no longer economically dispatch our system. These economic
benefits being discussed are in addition to the true reliability needs that

⁸⁷ See Attachment AED-25, NV Energy's response to Staff DRs 90 and 91.

1 Nevada has to address. *NV Energy is coming forward with private*
2 *money and saying we are prepared to fund \$2.5 billion into the State.*
3 *Shareholders do not recover on that money until that asset goes into*
4 *service.* When that asset goes into service, through a contested
5 proceeding with the PUCN where parties can intervene, every party is
6 allowed to question every cost we put into the project. The PUCN then
7 sets how much of the investment we can recover and the rate we can earn
8 on that asset. *We will bring \$2.5 billion to the table. We will put*
9 *thousands of people to work today, and Nevadans will not be asked to*
10 *pay for this investment until at least five to six years down the road.*
11 *Nevadans receive the benefits of that immediate economic investment.*
12 It is not a risk-free proposition. We do not know what the PUCN will
13 approve. We will manage the project prudently and be reasonable in our
14 expenditures. Many parties will intervene in that proceeding. We had
15 many arguments over what costs were reasonable and prudent. We may
16 not come out of that proceeding with 100 percent cost recovery. We will
17 model one return rate for our ROI, but the Commission may choose a
18 different return of investment. We go into this proceeding not knowing
19 any of the numbers ahead of time. We go in trusting a balanced
20 regulatory process is in place and a balanced outcome will be delivered
21 at the end of the process. But we do it to ensure Nevadans can get to
22 work, and that is our goal [emphasis added].⁸⁸

23 At a time the State of Nevada was economically struggling due to the COVID-
24 19 global pandemic, NV Energy stated that it had the *private capital* to bring to the
25 State of Nevada to fund the Greenlink Nevada Project to spur economic development
26 in Nevada and committed to the State Legislature, and more importantly, the people of
27 Nevada, that it would not recover any of that capital investment *until* the Greenlink
28 Nevada Project goes into service and provides the benefits of that capital investment to
the State of Nevada. The cost of the private capital that NV Energy invests in Nevada
to ratepayers includes the *return of* and *return on* the capital investment to construct
the asset. However, it now appears that NV Energy is threatening that it will not fund
that capital to bring the economic benefits it promised to Nevada unless it receives
additional financial incentives to start recovering the return on its capital investment
before ratepayers receive any benefits associated with the asset.

⁸⁸ See Attachment AED-12, the minutes of the May 17, 2021, meeting of the Senate Committee on Growth and Infrastructure at 32.

1 **72. Q. Did NV Energy’s CEO, Doug Cannon make similar representations publicly**
2 **regarding NV Energy not seeking any special regulatory treatment for the**
3 **Greenlink Nevada Project?**

4 A. Yes. Mr. Cannon is quoted in a July 27, 2020, the Nevada Independent new article,
5 stating:

6 “We’re not asking for any tax breaks,” Cannon said in an interview last
7 week. “We’re not asking for any special treatment. We’re ready to make
8 this investment in the state and drive economic development in the
state.”⁸⁹

9 **73. Q. Should NV Energy be held to the public commitments made by its CEO Doug**
10 **Cannon to the Nevada Legislature, to customers, and to all other stakeholders**
11 **within the State of Nevada?**

12 A. Yes. NV Energy’s actions in seeking to obtain financial incentives prior to ratepayers
13 receiving any benefits associated with the Greenlink Nevada Project could be viewed
14 as a bait-and-switch scheme. It is disingenuous for NV Energy to publicly state that it
15 already has the capital necessary to construct the Greenlink Nevada Project and
16 commit to bringing their private capital to the State of Nevada without any special
17 financial incentive treatment or to seek recovery of that capital prior to the State of
18 Nevada receiving the economic benefits from NV Energy’s investment. NV Energy
19 has been a trusted partner with the State of Nevada for over a century by delivering
20 upon its previous commitments. It is disappointing that NV Energy appears reluctant
21 to continue to do so now. The Commission must hold NV Energy to its word and deny
22 its request for financial incentives on the Greenlink Nevada Project.

23 **74. Q Did you ask NV Energy to reconcile the discrepancy between the statements it**
24 **previously made and its request for financial incentives in this IRP filing?**

25 A. Yes. In response to discovery, NV Energy argued that CWIP in rate base is not the
26 return of NV Energy’s capital investment, it is partially a return on its capital
27

28 ⁸⁹ See <https://thenevadaindependent.com/article/the-indy-explains-why-nv-energy-is-pushing-for-a-2-billion-statewide-transmission-upgrade>.

1 investment and NV Energy will not recover the costs associated with CWIP in rate
2 base until it is reflected in rates.⁹⁰ NV Energy added that it would need to file a GRC
3 to have CWIP included in rates, and its next GRC filing is a Nevada Power GRC that
4 is currently planned to be filed in the first half of 2025.⁹¹ Therefore, NV Energy states
5 that customers will not be paying for the investment of the asset, the CWIP in rate
6 base is just a return on the cash put forward and that the statements generally hold
7 true.⁹² This statement is both perplexing and disconnected from reality. NV Energy
8 witness Mr. Behrens, the responder to the data request tries to thread the needle in his
9 argument that paying a return on an investment without paying back some of the
10 original investment costs (i.e., depreciation) is not akin to asking ratepayers to begin
11 paying for the cost of the investment. Staff disagrees with this position whole
12 heartedly. NV Energy is asking customers to pay a cost associated with the Greenlink
13 Nevada Project (by example, the “interest“ part of a loan -NV Energy’s return on its
14 Greenlink Nevada Project investment) that has not been constructed, not been placed
15 into service, and is not currently benefiting the customers. Without question, asking
16 customers to begin paying for any costs associated with the project is asking for
17 recovery of the costs of the project early. There is no other reasonable interpretation
18 of NV Energy’s incentive requests.

19 **75. Q. NV Energy states that the incentives it is requesting will provide the financial**
20 **support and help to withstand any future credit downgrade that can happen**
21 **barring any unforeseen financial event. Are there other financial mechanisms**
22 **available to NV Energy to address its concerns besides CWIP in rate base and**
23 **regulatory asset treatment of depreciation expense?**

24 A. Yes. NV Energy has numerous options to address the financial concerns it has for
25 Sierra. One such regulatory option available to NV Energy is decoupling. Another
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27 ⁹⁰ See Attachment AED-26, NV Energy’s response to Staff DR 129.

28 ⁹¹ *Id.*

⁹² *Id.*

1 regulatory option available to NV Energy is alterative ratemaking. Additionally, NV
2 Energy could pursue alternatives to large company-owned rate-based transmission
3 projects like the Greenlink Nevada Project. As the Commission stated in its Order in
4 Sierra's GRC in Docket No. 24-02026, if Sierra does not have the balance sheet, credit
5 capacity, or cannot obtain the necessary capital investment to construct the Greenlink
6 Nevada Project from its parent company Berkshire Hathaway Energy ("BHE")
7 without significant increases to its rates, NV Energy could explore other ownership
8 models similar to NV Energy's joint ownership of the One Nevada Line transmission
9 project with LS Power, which was developed and placed into service through an
10 operating lease structure with a third-party developer.⁹³ Staff witness Swetha Venkat
11 provides further discussion regarding NV Energy's credit metrics, financial plan, and
12 customer rate impact analysis. Staff witness John Brownrigg provides further
13 discussion regarding NV Energy's request for financial incentives on the Greenlink
14 Nevada Project.

15 **76. Q. Are there other reasons why the Commission should not grant NV Energy's**
16 **request for financial incentives for the Greenlink Nevada Project?**

17 A. Yes. The Commission should not grant NV Energy's requested financial incentives as
18 it may allow NV Energy to receive a return on numerous expenditures that have not
19 been determined to be prudent or just and reasonable, creates intergenerational
20 inequities, and, quite possibly, inequities between Nevada Power's and Sierra's
21 ratepayers.

22 **77. Q. Please explain how granting NV Energy's request for CWIP in rate base for the**
23 **Greenlink Nevada Project may allow NV Energy to receive a return on**
24 **expenditures that may not be just and reasonable.**

25 A. Approving CWIP in rate base allows NV Energy to recover the return on its
26 expenditures during the construction of an asset. The development and construction of
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⁹³ Docket No. 24-02026, Order at 54, issued September 18, 2024.

1 the Greenlink Nevada Project is a time-consuming and arduous task that, as evidenced
2 by recent experiences, requires NV Energy to adapt to many possible unforeseen
3 events. A proper review of the costs associated with developing and constructing the
4 Greenlink Nevada Project cannot occur until after the project is completed and all
5 costs are known. Furthermore, because NV Energy has already included \$4.23 million
6 of costs associated with the cancellation of the four 525/230 kV transformers that are
7 not prudent or reasonable, as previously discussed, there is no confidence that NV
8 Energy is ensuring that the totality of the costs of the Greenlink Nevada Project are
9 prudent, and just and reasonable.⁹⁴

10 **78. Q. Please explain how granting NV Energy's requested financial incentives creates**
11 **intergenerational inequities.**

12 A. NV Energy states that without the increased transmission import capacity that the
13 Greenlink Nevada Project brings, it would be impossible to serve an anticipated 4,000
14 MW of load additions associated with executed Rule 9 contracts and 6,000 MW of
15 proposed additional load in Northern Nevada. If any of these loads materialize, NV
16 Energy will have more billing determinants to spread the Greenlink Nevada Project
17 costs over, which in time, lowers the impact on customers' bills. Granting NV
18 Energy's request for CWIP in rate base at a time when ratepayers are already
19 struggling with the high costs of electricity in Nevada would add undue costs to a
20 customer's bill that would have been paid for, at least in part, by new customers.
21 Additionally, NV Energy has claimed numerous times that one benefit of the
22 Greenlink Nevada Project is access to cheaper renewable energy that will help offset
23 the costs of the Greenlink Nevada Project, which has yet to occur. The Commission
24 should deny NV Energy's request for CWIP in rate base and provide additional time
25 for the anticipated billing determinants to materialize and for NV Energy to access
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⁹⁴ See Attachment AED-27, NV Energy's response to Staff DR 294.

1 cheaper renewable energy to help offset the impact that the Greenlink Nevada Project
2 will have on customers' bills.

3 **79. Q. Please explain how granting NV Energy's requested financial incentives may**
4 **create inequities between Nevada Power's and Sierra's ratepayers.**

5 A. In Docket No. 20-07023, the Commission set the initial cost allocation ratio for the
6 Greenlink West project at 70 percent to Nevada Power and 30 percent Sierra, but
7 further held that the cost allocation could be reconsidered in a future filing.⁹⁵ NRS
8 704.79877(3) similarly sets an initial 70/30 percent cost allocation ratio for the
9 Greenlink North and Harry Allen to Northwest 525 kV transmission lines, but permits
10 the Commission to reassess the cost allocation ratio based upon the actual benefits that
11 accrue to each electric utility after the transmission lines are placed into service.
12 However, it is currently unknown what generation projects or customer loads will be
13 interconnected to the Greenlink Nevada Project. Additionally, based on Sierra's
14 increased forecasted load growth in this Docket compared to Sierra's load in Docket
15 No. 23-07023, the 70/30 percent cost allocation is no longer applicable, and the
16 Commission should re-evaluate the Greenlink Nevada Project cost allocation prior to
17 allowing NV Energy to recover any costs associated with the project. The benefits
18 that accrue to each electric utility from the Greenlink Nevada Project will vary
19 depending on that utility's use of the project. Therefore, the cost allocation ratios need
20 to be modified in a general rate case.

21 **80. Q. Did NV Energy request financial incentives for the Greenlink Nevada Project at**
22 **the Federal Energy Regulatory Commission ("FERC")?**

23 A. Yes. NV Energy requested and received FERC approval for CWIP in rate base,
24 recovery of 100 percent of prudently incurred costs (in the event that the Greenlink
25 Nevada Project is abandoned or cancelled for reasons outside of NV Energy's
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⁹⁵ Docket No. 20-07023, Order at 268, issued March 22, 2021.

control), and deferral of the Greenlink Nevada Project depreciation expense into a regulatory asset treatment in FERC Docket No. EL-22-73.⁹⁶

81. **Q. Did any of the FERC Commissioners express concerns about FERC’s approval of the financial incentives in Docket No. EL22-73-000?**

A. Yes. FERC Commissioner Mark Christie stated that he believed that FERC needs to revisit the array of financial incentives offered to transmission developers and questioned whether FERC’s determination for those financial incentives has become nothing more than a check-the-box exercise.⁹⁷ Specifically, Commissioner Christie stated:

A core principle of utility law and regulation for decades is that consumers can only be forced to pay costs for assets that are “used and useful” to them. In Order No. 679, the Commission determined that it may be necessary to depart from this long-standing ratemaking principle to “address the substantial challenges and risks in constructing new transmission.” In my concurrences to prior orders in which the Commission granted the Abandoned Plant Incentive to NextEra Energy Transmission Southwest, LLC for its investments in projects in SPP, I questioned, among other concerns, whether the Commission’s determination of whether “substantial challenges and risks” exist when granting the Abandoned Plant Incentive and other incentives has become nothing more than a check-the-box exercise.

As I noted previously:

The Commission’s incentive policies—particularly the CWIP Incentive, which allows recovery of costs *before* a project has been put into service—run the risk of making consumers “the bank” for the transmission developer; but, unlike a real bank, which gets to charge interest for the money it loans, under our existing incentives policies the consumer not only effectively “loans” the money through the formula rates mechanism, but also pays the utility a profit, known as Return on Equity, or “ROE,” for the privilege of serving as the utility’s *de facto* lender.

Further, just as the CWIP Incentive effectively makes consumers the bank for transmission developers, the Abandoned Plant Incentive effectively makes them the insurer of last resort as well. This incentive allows transmission developers to recover from consumers the costs of investments in projects that fail to materialize and thus do not benefit consumers. Just as consumers receive no interest for the money they effectively loan transmission developers through CWIP, they receive no premiums for the insurance they provide through the Abandoned Plant Incentive if the project is never built. And if the CWIP Incentive is a *de*

⁹⁶ See Attachment AED-28, FERC Docket No. EL22-73-000, Order Granting Petition for Declaratory Order at 29, issued March 22, 2023.

⁹⁷ *Id.* at 30-32.

1 *facto* loan and the Abandoned Plant Incentive is *de facto* insurance —
2 both provided by consumers — then the RTO participation adder, which
3 increases the transmission owner’s ROE above the market cost of equity
4 capital, is an involuntary gift from consumers. There is something really
5 wrong with this picture.

6 As this Commission considers other potential reforms related to regional
7 transmission planning and development, it is imperative that incentives
8 like the CWIP Incentive, Abandoned Plant Incentive, and RTO
9 participation adder are all revisited to ensure that all the costs and risks
10 associated with transmission construction are not unfairly inflicted on
11 consumers while transmission developers and owners stand to gain all
12 the financial reward. Moreover, if the Commission determines it is
13 appropriate to channel risks to consumers, those risks must be carefully
14 weighed and considered and not simply awarded in an exercise of
15 “check-the-box.”

16 Indeed, rising transmission costs are not going unnoticed at the state
17 level. Even here, the Office of the Nevada Attorney General, Bureau of
18 Consumer Protection (Nevada Protection Bureau), as well as the Public
19 Utilities Commission of Nevada (Nevada Commission) have raised
20 concerns regarding rising transmission rates and their impact on Nevada
21 ratepayers. Nevada Protection Bureau protests NV Energy’s request for
22 incentive rate treatment for the Greenlink Nevada Transmission Project
23 (Greenlink Nevada project) “given that it will unnecessarily increase
24 costs for Nevada’s electric ratepayers.” Nevada Protection Bureau
25 represents that the two NV Energy companies, Nevada Power Company
26 and Sierra Pacific Power Company, “had a combined \$1.6 billion [] in
27 net transmission plant-in-service at the end of 2021” and that “[t]he
28 addition of the \$2.5 billion [] Greenlink Nevada project is going to create
significant upward pressure on the general rates paid by customers of the
Nevada electric utilities.” Nevada Protection Bureau questions how it is
just and reasonable to require consumers to pay for the costs of a plant
that is not used and useful in providing electric service to them. The
Nevada Commission also asks that the Commission consider the
potential rate impacts to Nevada ratepayers in its evaluation, on which
the order is conspicuously silent.⁹⁸

20 **82. Q. Do you agree with Commissioner Christie’s concerns?**

21 A. Yes. NV Energy’s Greenlink Nevada Project is becoming one of the most expensive
22 privately funded construction projects in Nevada and will be the most expensive
23 project constructed by NV Energy. Given the significant cost of the Greenlink Nevada
24 Project, assessing whether to grant NV Energy’s requested financial incentives should
25 not be just a mere check-the-box exercise.

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⁹⁸ *Id.*

1 **83. Q. When does NV Energy expect to begin recovery of the FERC-approved CWIP in**
2 **rate base from its FERC jurisdictional customers?**

3 A. NV Energy stated that it would need to file an application at FERC seeking approval
4 of CWIP in rate base and that it has not made such a filing to date, nor has it
5 determined the timing of such filing, if any.⁹⁹ NV Energy added that it will determine
6 the timing of a potential FERC filing to recover CWIP in rate base once this
7 Commission issues a ruling on NV Energy's requested CWIP accounting treatment for
8 retail customers in the instant Docket.¹⁰⁰ NV Energy's response that it is waiting until
9 this Commission's decision on its request for CWIP in rate base for native load
10 customers before it seeks recovery of CWIP in rate base from its FERC jurisdictional
11 customers is baffling. It is perplexing that on the one hand, NV Energy states that it is
12 imperative that Sierra generate more cash flows but on the other hand, NV Energy
13 does not know when, or if, it will file a FERC rate case to recover the financial
14 incentives for which it has already received approval.

15 **84. Q. Does NV Energy have an incentive to allocate more of the Greenlink Nevada**
16 **Project to Nevada Power?**

17 A. Yes. NV Energy's native load FERC transmission jurisdictional cost allocation is
18 approximately 82 percent for Nevada Power and approximately 64 percent for
19 Sierra.¹⁰¹ Nevada Power recovers approximately 18 percent more of its transmission
20 requirements from native load than Sierra does. Allocating more of the Greenlink
21 Nevada Project costs to Nevada Power allows NV Energy to collect more revenue
22 from native load customers, thereby potentially delaying the need for NV Energy to
23 file a FERC rate case.

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27 ⁹⁹ See Attachment AED-29, NV Energy's response to Staff DR 268.

¹⁰⁰ *Id.*

28 ¹⁰¹ See Docket No. 23-06007, Statement N, Jurisdictional Electric Cost of Service Study - Nevada, Vol. 2 at 40 of
347. See also Docket No. 24-02026, Statement N, Jurisdictional Electric Cost of Service Study - Nevada, Vol. 6 at 260
of 285.

1 **85. Q. Are there other incentives available for NV Energy to construct the Greenlink**
2 **Nevada Project?**

3 A. Yes. NV Energy is required to mitigate costs by utilizing any federal tax incentives or
4 federal funding pursuant to NRS 704.79878(1) and propose a rate method or
5 mechanism to mitigate any increase in its total revenue requirement of more than 10
6 percent due to recovery of the costs of the Greenlink Nevada project pursuant to NRS
7 704.79878(2). However, there does not seem to be any other statutory provisions in
8 NRS 704.79871 through NRS 704.7988 relating to costs. The Nevada Legislature
9 appears to have mandated NV Energy to construct the Greenlink Nevada Project
10 without placing any caps on the costs that would be incurred to place the Greenlink
11 Nevada Project in-service by December 31, 2028. The only limit is that the costs have
12 to be deemed just and reasonable by the Commission in a GRC.¹⁰² NV Energy's
13 incentive is that it gets to build the Greenlink Nevada Project and earn a return on this
14 significant capital investment. In a public or private business setting, if an individual
15 were to propose and move forward with a project in which the final project cost
16 increased over 100 percent more than the original cost estimate, it would be highly
17 unlikely for that individual to retain their position or the trust of their employer.
18 Furthermore, it would be completely inappropriate for them to request financial
19 incentives, i.e., a bonus, related to the project under such circumstances.

20 **86. Q. Does NV Energy's request for incentives in this Docket comport with the terms of**
21 **the stipulation filed and approved in Docket No. 21-06001 regarding the**
22 **TICEEP?**

23 A. No. Staff does not believe NV Energy's request for financial incentives on the
24 Greenlink Nevada Project in this Docket comports with the terms of the TICEEP
25 stipulation filed in Docket No. 21-06001. Staff witness John Brownrigg provides
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28 ¹⁰² If the final cost to construct the Greenlink Nevada Project were \$10 billion and the Commission deemed the \$10 billion of costs just and reasonable, NV Energy's ratepayers would be required to pay the return of and the return on NV Energy's \$10 billion capital investment.

1 further discussion on how NV Energy's request for financial incentives does not
2 comport with the TICEEP stipulation in Docket No. 21-06001.

3 **87. Q. What is your recommendation regarding NV Energy's requests for CWIP in rate**
4 **base accounting treatment and to record and include the depreciation expense**
5 **without carry charges into a regulatory asset for the Greenlink Nevada Project**
6 **(PFR Sections 1(k) and 1(l))?**

7 A. In conjunction with Staff witness John Brownrigg, I recommend that the Commission
8 deny NV Energy's requests for CWIP in rate base accounting treatment and to record
9 and include the depreciation expense without carry charges into a regulatory asset for
10 the Greenlink Nevada Project, as listed in PFR Sections 1(k) and 1(l).

11
12 **IV. Recommendation No. 4: Approve NV Energy's request for a Supply Plan addition of**
13 **the Fort Churchill to Comstock Meadows #2 345 kV transmission line, as listed in PFR**
14 **Section 1(g)(xv), with an in-service date contingent on the specific customers' loads**
15 **identified in Q&A 15 of the Direct Testimony of Layne Maxfield materializing, and**
16 **subject to a prudency review in the appropriate NV Energy GRC.**

17 **88. Q. Please describe NV Energy's request to construct the Ft. Churchill to Comstock**
18 **Meadows #2 345 kV transmission line.**

19 A. NV Energy received Commission approval to design, permit and acquire land for the
20 Ft. Churchill to Comstock Meadows #2 345 kV transmission line at a budget of \$12.8
21 million in Docket No. 20-07023. In the instant Docket, NV Energy is requesting
22 Commission approval to construct the Ft. Churchill to Comstock Meadows #2 345 kV
23 transmission line at an estimated incremental cost of \$97.4 million with a December
24 2027 in-service date, as NV Energy states the line is required to serve a specific
25 customer's load.¹⁰³

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¹⁰³ The total estimated cost of the Ft. Churchill to Comstock Meadows #2 345 transmission line is \$110.2 million.

1 **89. Q. Why is the Ft. Churchill to Comstock Meadows #2 345 kV transmission line**
2 **needed?**

3 A. NV Energy stated that a specific data center customer requesting 461 MW, pursuant to
4 a signed Rule 9 agreement, requires the construction and line fold of the Ft. Churchill
5 to Comstock Meadows #2 345 kV transmission line into the Mackay switching
6 station.¹⁰⁴ Additionally, NV Energy stated that there are also two loads that require the
7 Ft. Churchill to Comstock Meadows #2 345 kV transmission line, one is a 450 MW
8 load, and the other is a 625 MW load.¹⁰⁵

9 **90. Q. Do you have concerns regarding NV Energy's request to construct the Ft.**
10 **Churchill to Comstock Meadows #2 345 kV transmission line?**

11 A. Yes. There is a risk associated with serving the extremely large and speculative loads
12 associated with data centers. NV Energy states that Sierra has executed agreements
13 for 4,000 MW of additional load and an additional 6,000 MW of proposed load
14 additions are in the study phase¹⁰⁶—possibly quintupling Sierra's current peak load.
15 NV Energy does not expect that all of the 10,000 MW of additional load will
16 materialize because, historically, the actual load that materializes is significantly less
17 than the load growth forecast provided by the customers. However, once a customer
18 executes a Rule 9 agreement, NV Energy claims it is required to build out its
19 transmission infrastructure to accommodate the full load forecasted by that customer.

20 I am concerned that NV Energy may incur \$110 million in costs to construct
21 the Ft. Churchill to Comstock Meadows #2 345 kV transmission line for customers
22 whose loads may not materialize, leaving ratepayers on the hook for those costs which
23 is a scenario that has recently occurred.¹⁰⁷ For example, Staff witness Ryan Sinclair
24 testified in Sierra's 2024 GRC in Docket No. 24-02026, that Sierra constructed
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26 ¹⁰⁴ Direct Testimony of Layne Maxfield at 7-8.

27 ¹⁰⁵ Direct Testimony of Layne Maxfield at 7-8.

28 ¹⁰⁶ Direct Testimony of Charles Pottley at 7.

¹⁰⁷ In Docket No. 24-02026, NV Energy has taken the position that if a transmission facility is energized, it is fully used and useful regardless of the amount of energy flowing through the transmission line and the Commission must allow full recovery of that investment.

1 extensive transmission infrastructure in the Tahoe Reno Industrial Center (“TRIC”) to
2 serve the large loads requested by data centers, but the large loads that the facilities
3 were built to serve have not materialized to the extent those data center customers
4 forecasted.¹⁰⁸

5 **91. Q. Does NV Energy have an obligation to manage the risk associated with the**
6 **extremely large and speculative loads associated with data centers?**

7 A. Yes. Although NV Energy is required to construct transmission infrastructure to serve
8 a data center customer’s forecasted load pursuant to a Rule 9 agreement, NV Energy
9 must manage any risk of the load not materializing to offset the incremental costs to
10 remaining ratepayers.

11 **92. Q. How can NV Energy manage this risk?**

12 A. NV Energy stated that its Rule 9 tariff contains risk protocols to protect ratepayers,
13 such as applying abnormal risk provisions to the applicable agreements, requiring 100
14 percent security of the utility investment, requiring an advance subject to potential
15 refund, implementing a phased approach to construct transmission infrastructure over
16 time as the load materializes, and establishing agreement milestones to ensure the
17 customer and NV Energy are progressing together.¹⁰⁹ Because data center loads in
18 Nevada have not materialized to the amount those data centers have forecasted, NV
19 Energy must fully enforce its Rule 9 Agreements. Staff witness Ryan Sinclair provides
20 additional ways NV Energy could manage the risk.

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23 **93. Q. Are there actions that the Commission can take to also lower the risk?**

24 A. Yes. First, the Commission should grant prudence approval of the Ft. Churchill to
25 Comstock Meadows #2 345 kV transmission line based upon the need to serve the
26 specific customer, but the Commission should not grant prudence approval to meet a
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28 ¹⁰⁸ Docket No. 24-02026, Exhibit 314 at 3-8 (Direct Testimony of Ryan Sinclair).
¹⁰⁹ See Attachment AED-30, NV Energy’s response to Staff 345.

1 specific in-service date. The in-service date should be contingent on the specific
2 customer's load materializing, and the resulting costs associated with this project will
3 be evaluated in the context of a general rate case when NV Energy seeks to recover
4 the costs associated with the Ft. Churchill to Comstock Meadows #2 345 kV
5 transmission line.

6 **94. Q. Do you have any other concerns regarding the Ft. Churchill to Comstock**
7 **Meadows #2 345 kV transmission line?**

8 A. Yes. I am concerned that NV Energy considers the Ft. Churchill to Comstock
9 Meadows #2 345 kV transmission line as being part of the Greenlink Nevada Project,
10 and thus, is required to be in service not later than December 31, 2028, pursuant to
11 NRS 704.79877(1). Additionally, NV Energy's estimated project cost of \$110.2
12 million appears to not include costs associated with constructing a block wall security
13 perimeter.

14 **95. Q. Is the Ft. Churchill to Comstock Meadows #2 345 kV transmission line a part of**
15 **the Greenlink Nevada Project?**

16 A. No. Although NV Energy has included both of the Ft. Churchill to Comstock
17 Meadows 345 kV transmission lines with its Greenlink West project in previous
18 Commission filings and is also permitting those transmission lines together, the Ft.
19 Churchill to Comstock Meadows #2 345 kV transmission line should not be part of the
20 Greenlink Nevada Project. The Ft. Churchill to Comstock Meadows #2 345 kV
21 transmission is not required to complete the Greenlink Nevada Project but is instead
22 required for the sole purpose of serving a specific customer and the in-service date
23 should be based upon that customer's load materializing.

1 **96. Q. With the addition of the Ft. Churchill to Comstock Meadows #2 345 kV**
2 **transmission line at the Comstock Meadows substation, will NV Energy be**
3 **required to build a block wall security perimeter around the Comstock Meadows**
4 **substation to comply with North American Electrical Reliability Corporation’s**
5 **(“NERC”) Critical Infrastructure Protection (“CIP”) standards?**

6 A. NV Energy first stated that adding the Ft. Churchill to Comstock Meadows #2 345 kV
7 transmission line does not require NV Energy to construct a block wall security
8 perimeter around the Comstock Meadows substation to comply with NERC’s CIP
9 standards in its response to Staff DR 354.¹¹⁰ However, NV Energy later stated that the
10 block wall security perimeter around the Comstock Meadows substation would be
11 required when the Ft. Churchill to Comstock Meadows #2 345 kV transmission line is
12 constructed in its response to Staff DR 395.¹¹¹ Staff DRs 354 and 395 were responded
13 to by two different NV Energy employees and those two employees provided
14 completely contradictory responses. If NV Energy is required to construct the block
15 wall security perimeter around the Comstock Meadows substation when it constructs
16 the Ft. Churchill to Comstock Meadows #2 345 kV transmission line, the cost to
17 construct the transmission line will be higher than NV Energy’s estimate of \$110.2
18 million.

19 **97. Q. What is your recommendation regarding NV Energy’s request to construct the**
20 **Ft. Churchill to Comstock Meadows #2 kV transmission line with a December**
21 **2027 in-service date?**

22 A. I recommend that the Commission approve NV Energy’s request for a Supply Plan
23 addition of the Fort Churchill to Comstock Meadows #2 345 kV transmission line,
24 based on an estimated incremental cost of \$97.4 million, but the in-service date should
25 be contingent on the specific customer’s load, identified in Q&A 15 of the Direct
26 Testimony of Layne Maxfield, materializing.

28 ¹¹⁰ See Attachment AED-31, NV Energy’s response to Staff DR 354.

¹¹¹ See Attachment AED-32, NV Energy’s response to Staff DR 395.

1 **V. Recommendation No. 5: Approve NV Energy’s request for conditional approval to**
2 **construct the third and fourth 525/345 kilovolt (“kV”) transformers located at the Ft.**
3 **Churchill substation only upon loads connecting at the Ft. Churchill substation**
4 **materializing (PFR Section 1(g)(xvi).**

5 **98. Q. Please describe NV Energy’s request for conditional approval to construct the**
6 **third and fourth 525/345 kV transformers located at the Ft. Churchill substation**
7 **only upon loads that connect to the Ft. Churchill substation materializing.**

8 A. NV Energy states that it is seeking approval to construct the third and fourth 600
9 MVA 525/345 kV transformers at the Ft. Churchill substation, in conjunction with the
10 Ft. Churchill to Comstock Meadows #2 345 KV transmission line at an estimated cost
11 of \$12 million, due to the approximately 4,000 MW of load associated with executed
12 Rule 9 agreements conditioned on when the load materializes.¹¹² NV Energy states
13 that it will construct the third 600 MVA 525/345 kV transformer when the total load
14 on the existing two Ft. Churchill 525/345 kV transformers reaches 600 MVA.¹¹³
15 Subsequently, when the total load on the Ft. Churchill 525/345 kV transformers
16 reaches 1,200 MVA, NV Energy stated that it will construct the fourth 525/345 kV
17 transformer.¹¹⁴ NV Energy added that the current customer load forecasts indicate that
18 load on the first two 525/345 kV transformers will exceed the transformers’
19 continuous N-1 600 MVA rating during the three-year IRP action plan period and that
20 NV Energy may need to pay a deposit to the manufacturer for the fourth 525/345 kV
21 600 MVA transformer.¹¹⁵

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27 ¹¹² Supply Side Plan Narrative, Vol. 8 at 159 of 393.

28 ¹¹³ *Id.*

¹¹⁴ *Id.*

¹¹⁵ Direct Testimony of Layne Maxfield at 7-8.

1 **99. Q. Do you have any concerns regarding NV Energy’s request for conditional**
2 **approval to construct the third and fourth 525/345 kV 600 MVA transformers at**
3 **the Ft. Churchill substation?**

4 A. Yes. Similar to the concerns I provide in my Recommendation No. 4, there is a risk
5 associated with serving the extremely large and speculative loads associated with data
6 centers. NV Energy states that Sierra has executed agreements for 4,000 MW of
7 additional load and an additional 6,000 MW of proposed load additions are in the
8 study phase¹¹⁶—possibly quintupling Sierra’s current peak load. NV Energy does not
9 expect that all of the 10,000 MW of additional load will materialize because,
10 historically, the actual load that materializes is significantly less than the load growth
11 forecast provided by the customers. However, once a customer executes a Rule 9
12 agreement, NV Energy claims it is required to build out its transmission infrastructure
13 to accommodate the full load forecasted by that customer.

14 **100. Q. How can NV Energy manage this risk?**

15 A. NV Energy stated that its Rule 9 tariff contains risk protocols to protect ratepayers,
16 such as applying abnormal risk provisions to the applicable agreements, requiring 100
17 percent security of the utility investment, requiring an advance subject to potential
18 refund, implementing a phased approach to construct transmission infrastructure over
19 time as the load materializes, and establishing agreement milestones to ensure the
20 customer and NV Energy are progressing together.¹¹⁷ Because data center loads in
21 Nevada have not materialized to the amount those data centers have forecasted, NV
22 Energy must fully enforce its Rule 9 Agreements. Staff Witness Ryan Sinclair
23 provides additional ways NV Energy could manage the risk.

28 ¹¹⁶ Direct Testimony of Charles Pottley at 7.

¹¹⁷ See Attachment AED-30, NV Energy’s response to Staff 345.

1 **101. Q. What is your recommendation regarding NV Energy's request for conditional**
2 **approval to construct the third and fourth 525/345 kilovolt ("kV") transformers**
3 **located at the Ft. Churchill substation?**

4 A. I recommend that the Commission approve NV Energy's request for conditional
5 approval to construct the third and fourth 525/345 kilovolt ("kV") transformers located
6 at the Ft. Churchill substation at a cost of \$12 million each only upon loads connecting
7 at the Ft. Churchill substation materializing, as listed in PFR 1(g)(vxi).
8

9 **VI. Recommendation No. 6: Approve NV Energy's proposed long-term avoided cost**
10 **("LTAC") rates.**

11 **102. Q. Please describe NV Energy's LTAC rates.**

12 A. Pursuant to NAC 704.9492, NV Energy calculated its LTAC based upon its Preferred
13 Plan to determine the LTAC rates that NV Energy proposes to offer to qualifying
14 facilities ("QFs") for blocks of capacity under Nevada's implementation of the federal
15 Public Utility Regulatory Policies Act. NV Energy provides its proposed LTAC rates
16 for Sierra and Nevada Power in Figures EA-57 and EA-58, respectively, of the Supply
17 Side Plan in Volume 8.

18 **103. Q. Did you identify any concerns regarding NV Energy's proposed LTAC rates?**

19 A. No, I did not. The LTAC rates appear to be reasonable.

20 **104. Q. What is your recommendation regarding NV Energy's proposed LTAC rates?**

21 A. I recommend that the Commission approve NV Energy's proposed LTAC rates.
22

23 **VII. Recommendation No. 7: Deny NV Energy's request for approval of the recommended**
24 **annual limits on the total amount of energy and capacity that eligible NRS Chapter**
25 **704B customers may be authorized to purchase from providers of new electric resources**
26 **during the Action Plan period, the Net Differential Energy Rate of \$0.04165 per kWh,**
27 **and the variable O&M credit rate of -\$0.00015 per kWh for the Action Plan period, as**
28 **listed in PFR 1(e), and order NV Energy, as a compliance item, to calculate and file the**

annual limits, Net Differential Energy Rate and variable O&M credit rate without removing the loads of customers who do not have a Commission-approved ESA.

105. **Q. What are NV Energy’s proposed annual limits on the total amount of energy and capacity that eligible NRS Chapter 704B customers may be authorized to purchase from providers of new electric resources during the Action Plan period?**

A. NV Energy proposed an annual limit of 86,887 megawatt-hours (“MWh”) and zero MWh for Nevada Power and Sierra, respectively.¹¹⁸

106. **Q. Please explain how NV Energy calculated its proposed annual limits.**

A. First, to determine the large commercial and industrial (“Large C&I”) year-end sales growth over the three-year action period, January 1, 2025, through December 31, 2027, NV Energy calculated the difference between the projected Large C&I load in 2027, from the three-year average of actual annual Large C&I loads during the 2021-2023 period.¹¹⁹ Then, NV Energy removed the loads for individual customers on tariff schedules with non-standard, fully bundled pricing options, such as the GS-4 New Generation tariff, LCMPE tariff, Market Price Energy (“MPE”) tariff, Economic Development Rate Rider (“EDRR”) tariff, or the yet to be approved Clean Transition Tariff (“CTT”). Finally, NV Energy applied a 50 percent reduction to reflect the requirement that the annual limits are not to exceed 50 percent of the Large C&I forecasted load growth during the three-year Action Plan period.

107. **Q. Why did NV Energy remove the loads of customers who have not yet been approved by the Commission to service under the LCMPE or CTT tariffs?**

A. NV Energy stated that large customers who pay contracted rates pursuant to the MPE, LCMPE, and the proposed CTT tariffs do not pay the standard bundled-service cost of generation and contribute zero dollars towards the generation costs of the system as

¹¹⁸ NV Energy set Sierra’s annual limit at zero MWh due to its lack of transmission import capacity.
¹¹⁹ Direct Testimony of Timothy Pollard at 23.

1 they are not relying on the NV Energy’s internal generation embedded in the revenue
2 requirements.¹²⁰

3 **108. Q. Do you have concerns regarding how NV Energy calculated its proposed annual**
4 **limits for Nevada Power?**

5 A. Yes. NV Energy removed loads of customers who have not yet been approved by the
6 Commission to take service under the LCMPE or CTT tariffs from its calculation of
7 Nevada Power’s annual limits. Specifically, NV Energy removed Las Vegas
8 Convention & Visitors Authority’s (“LVCVA”) loads. NV Energy removed these
9 loads even though the LVCVA application in Docket No. 24-06012 has not been
10 approved by the Commission.

11 **109. Q. Did NV Energy’s October 9, 2024, Errata and October 10, 2024, Supplement to**
12 **its October 9, 2024, Errata, which made corrections to the proposed NRS**
13 **Chapter 704B annual limits calculations and NRS Chapter 704B transition rates,**
14 **address your concerns?**

15 A. No. I do not believe so. In the limited time I had to review NV Energy’s October 9
16 and October 10, 2024, errata filings, I believe NV Energy still excluded the loads of
17 eligible customers who have yet been approved by the Commission to take service
18 under the LCMPE or CTT tariffs. It appears that NV Energy had overstated the
19 amount of customer load interested in receiving service under the LCMPE or CTT
20 tariffs in its original filing and the errata filings corrected that error.

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¹²⁰ Direct Testimony of Timothy Pollard at 25.

1 **110. Q. Should NV Energy be required to recalculate its proposed NRS Chapter 704B**
2 **annual limits, Net Differential Energy Rate, and the variable O&M credit rate**
3 **for the Action Plan period without removing the loads of customers who do not**
4 **have a Commission-approved ESA?**

5 A. Yes. NV Energy should, as a compliance item, recalculate the NRS Chapter 704B
6 annual limits, Differential Energy Rate and variable O&M credit rate without
7 removing the loads of customers who do not have a Commission-approved ESA.

8 **111. Q. What is your recommendation regarding NV Energy’s proposed NRS Chapter**
9 **704B annual limits, Net Differential Energy Rate, and the variable O&M credit**
10 **rate for the Action Plan period as listed in PFR 1(e)?**

11 A. I recommend that the Commission deny NV Energy’s requests for approval of the
12 recommended annual limits on the total amount of energy and capacity that eligible
13 NRS Chapter 704B customers may be authorized to purchase from providers of new
14 electric resources during the Action Plan period, the Net Differential Energy Rate of
15 \$0.04165 per kWh, and the variable operations and maintenance (“O&M) credit rate
16 of -\$0.00015 per kWh for the Action Plan period, and order NV Energy, as a
17 compliance item, to calculate and file the NRS Chapter 704B annual limits, Net
18 Differential Energy Rate and variable O&M credit rate without removing the loads of
19 customers who do not have a Commission-approved ESA.

20
21 **VIII. Recommendation No. 8: Approve NV Energy’s request to issue a list of any current and**
22 **ongoing legislative mandated public policy programs for which eligible customers are**
23 **required to pay costs, fees, charges or rates pursuant to NRS 704B.310(8), as listed in**
24 **PFR 1(f), and order NV Energy, as a compliance item, to clarify how the Commission’s**
25 **Orders to cease recording amounts to the NEM regulatory asset accounts in Docket Nos.**
26 **23-06014 and 24-02026 affects the NEM public policy costs NV Energy proposes to**
27 **charge to eligible customers pursuant to NRS 704B.310(8).**
28

1 **112. Q. Please identify the legislative mandated public policy programs for which NV**
2 **Energy proposes that eligible customers are required to pay costs, fees, charges**
3 **or rates pursuant to NRS 704B.310(8).**

4 A. NV Energy proposes the following legislative mandated public policy programs that
5 eligible customers are required to pay:

- 6 - Renewable Energy Program Rate (“REPR”)
- 7 - Temporary Renewable Energy Development Program Rate (“TRED”)
- 8 - Universal Energy Charge (“UEC”)
- 9 - Net Energy Metering (“NEM”)
- 10 - Energy Efficiency and Conservation Programs (“EE”)
- 11 - Expanded Solar Access Program (“ESAP”)
- 12 - Natural Disaster Protection Plan (“NDPP”)
- 13 - Transportation Electrification Plan (“TEP”)
- 14 - Economic Recovery Transportation Electrification Plan (“ERTEP”)
- 15 - Economic Development Rate Rider (“EDRR”); and
- 16 - Renewable-Base Tariff Energy Rate (“R-BTER”).¹²¹

17 **113. Q. Did you identify any concerns regarding the NV Energy’s proposed legislative**
18 **mandated public programs that eligible customers are required to pay?**

19 A. I do have concerns regarding NV Energy’s inclusion of the NEM public policy
20 program in this request. Staff does not understand why NV Energy included the NEM
21 public policy program as a legislative mandated public policy program for which NV
22 Energy proposes that eligible customers are required to pay costs, fees, charges or
23 rates pursuant to NRS 704.310(8). NV Energy has not clarified whether or not the
24 “NEM public policy costs” cited to in its application include the Assembly Bill
25 (“AB”) 405 NEM regulatory asset. If so, it is my understanding that the Commission
26 directed NV Energy, in Nevada Power’s 2023 GRC in Docket No. 23-06007 and in
27

28

¹²¹ Load Forecast Narrative, Vol. 8 at 19 of 214.

1 Sierra's 2024 GRC in Docket No. 24-02026, to cease recording amounts to the AB
2 405 NEM regulatory asset. NV Energy should be ordered to address, as a compliance
3 item, how the Commission's direction to cease recording amounts to the AB 405
4 NEM regulatory asset accounts affects the costs of the NEM legislative mandated
5 public policy programs for which NV Energy proposes that eligible customers should
6 be required to pay costs, fees, charges or rates pursuant to NRS 704.310(8).

7 **114. Q. What is your recommendation regarding NV Energy's proposed list of legislative**
8 **mandated public policy programs?**

9 A. I recommend that the Commission approve NV Energy's request to issue a list of any
10 current and ongoing legislative mandated public policy programs for which eligible
11 customers are required to pay costs, fees, charges or rates pursuant to NRS
12 704B.310(8), and as a compliance item, order NV Energy, as a compliance item, to
13 clarify how the Commission's Orders to cease recording amounts to the NEM
14 regulatory asset accounts in Docket Nos. 23-06014 and 24-02026 affects the NEM
15 public policy costs NV Energy proposes to charge to eligible customers pursuant to
16 NRS 704B.310(8).

17
18 **IX. Recommendation No. 9: In lieu of the grid hour capacity cost component of the ESA**
19 **long-term energy rate in NV Energy's exemplar LCMPE models, I recommend that the**
20 **ESA customer be billed the full BTGR rate of its otherwise applicable rate class for grid**
21 **delivered energy.**

22 **115. Q. Please describe the LCMPE tariff.**

23 A. The LCMPE tariff is applicable to non-residential customer that are able to: (1)
24 demonstrate that they will have an average annual hourly load of 10 MW or more, are
25 not a fully bundled retail customer of NV Energy and have not been approved by the
26 Commission to exit NV Energy's fully bundled retail electric service, or (2) have been
27 approved by the Commission to exit NV Energy's fully bundled retail electric service,
28 have an average annual hourly load of 10 MW or more, and have paid any impact fee

1 in full. The LCMPE tariff requires an eligible customer to pay an ESA long-term
2 energy rate and the applicable BTGR (with the cost of generation capacity removed
3 for all hours through bill credits), basic service charge, the UEC, public program costs
4 (unless exempted by any applicable law or Commission order), and any franchise fees,
5 taxes and mill assessment of the otherwise applicable rate schedule of the customer.

6 **116. Q. What is an ESA energy rate?**

7 A. The ESA energy rate is broken down into two components: the short-term energy rate
8 and the long-term energy rate. The ESA short-term energy rate commences upon the
9 effective date of the ESA and terminates when the renewable energy resource being
10 utilized as the ESA's generating resource reaches commercial operation (referred to as
11 the "underlying renewable energy resource"). The ESA long-term energy rate
12 commences upon the commercial operation date of the underlying renewable energy
13 resource and the LCMPE model serves as the base pricing model framework for
14 determining the long-term energy rate of each ESA. Adjustments to the long-term
15 energy rate calculated by the LCMPE model may be based upon the specific
16 circumstances of the ESA customer and the ESA itself.

17 **117. Q. Is NV Energy requesting Commission approval of its LCMPE model in the**
18 **instant Docket?**

19 A. Yes. NV Energy filed exemplar LCMPE models for Nevada Power's and Sierra's
20 LCMPE tariffs in compliance with directives 5 and 6 of the Commission's November
21 1, 2023, Order in consolidated Docket Nos. 23-02010 and 23-02011 for approval by
22 the Commission. Staff witness Swetha Venkat summarizes Staff's recommendation
23 regarding NV Energy's request for approval of its exemplar LCMPE models.

24 **118. Q. Please describe NV Energy's exemplar LCMPE models.**

25 A. The exemplar LCMPE models filed in the instant Docket use an hourly load profile of
26 a representative large customer and the general characteristics of the most recently
27 approved solar and battery resource as the underlying ESA renewable energy resource
28 to determine the long-term energy rate component of a representative ESA. The

1 exemplar LCMPE models calculate each of the five components of the ESA long-term
2 energy rate: (1) the solar photovoltaic (“PV”) cost, (2) the battery energy storage
3 system (“BESS”) cost, (3) a grid hour capacity cost, (4) a planning reserve margin
4 (“PRM”) cost, and (5) a placeholder forward price protection cost that is used for an
5 ESA under NV Energy’s proposed CTT, that is currently pending approval in Docket
6 Nos. 24-05022 and 24-05023. In addition to the long-term energy rate, the exemplar
7 LCMPE models provide an overall fully bundled effective ESA long-term energy rate,
8 which includes other rate components that were not built into the ESA long-term
9 energy rate, such as the base tariff energy rate (“BTER”) and the deferred energy
10 accounting adjustment rate (“DEAA”), that are applicable during hours that the
11 underlying ESA renewable energy resource is not producing and is used to compare
12 the overall fully bundled effective ESA energy rate against the fully bundled rate of
13 the customer’s otherwise applicable rate class.¹²²

14 **119. Q. Did NV Energy make any changes to the exemplar LCMPE model from the**
15 **LCMPE model used in the pending Madison Square Gardens (“MSG”) ESA in**
16 **Docket No. 23-08019?**

17 A. Yes. NV Energy stated it modified the “non-solar capacity charge” component used
18 in the LCMPE model from the MSG ESA in Docket No. 23-08019, which NV Energy
19 now refers to as the grid hour capacity cost component of the ESA long-term energy
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21 ¹²² NV Energy stated that, although the exemplar LCMPE model compares the overall fully bundled ESA effective
22 rate to the representative customer’s otherwise applicable rate case for transparency, the actual LCMPE model at the time
23 of filing and ESA will provide the comparison of the ESA rate to the distribution-only rate because it is the most
24 appropriate otherwise applicable rate class for an eligible LCMPE customer. *See* Direct Testimony of Janet Wells at 3.
25 Staff will address any concerns, if any, of NV Energy’s use of the distribution-only rate as the most appropriate otherwise
26 applicable rate class in the docket in which NV Energy performs that comparison. Additionally, NV Energy has included
27 a model in the currently pending Docket Nos. 24-05022 and 24-05023, Nevada Power and Sierra’s Clean Transition
28 Tariff (“CTT”) Dockets. Staff’s recommendations contained herein pertain only to the LCMPE model filed for approval
in the instant Docket. Staff will make its CTT recommendations in CTT-specific Dockets. As a broad disclaimer, Staff’s
recommendations contained herein do not mean that Staff is or will be recommending approval of the CTT ESAs with
Callisto Enterprises LLC (Docket No. 24-06014), Las Vegas Convention and Visitors Authority (Docket No. 24-06012),
and/or Coeur Rochester, Inc. (Docket No. 24-06011). Staff will provide its recommendations concerning those CTT
ESAs in their corresponding pending Dockets. Similarly, Staff’s recommendations contained herein do not mean that
Staff is or will be recommending approval of the CTT. Staff will provide its CTT recommendations in the pending CTT
Advice Letter Dockets.

1 rate. NV Energy changed the calculation of the grid hour capacity cost from the one-
2 year representative capacity portion of the LTAC rate it previously used to a fixed 25-
3 year average of the forecasted capacity component of the LTAC rate to represent the
4 forecasted LTAC rates over the term of the ESA. NV Energy stated that the 25-year
5 average of the forecasted LTAC capacity price is added to any hour that the load is not
6 being served by the renewable energy resource.¹²³

7 **120. Q. What is the LTAC rate and how is it calculated?**

8 A. The LTAC rate is updated every three years in the IRP and is an estimated cost that
9 represents the incremental cost of producing one MWh of energy generation that
10 includes a capacity cost component in addition to the hourly marginal energy cost
11 during summer months. The hourly marginal energy cost component of the LTAC is
12 calculated by running production cost modeling of the utility's system, using forward
13 natural gas, purchased power and capacity pricing forecasts, as described in the
14 Preferred Plan in the IRP.¹²⁴ The capacity cost component of the LTAC is calculated
15 by converting the forecasted capacity price within the Fuel and Purchased Power Price
16 Forecast from a dollar per kW-yr price to a dollar per MWh price based on a 7 X 16
17 hour on-peak period (or during the 7 a.m. to 10 p.m. time period each day of the week)
18 for the months of June, July, August, and September. The converted capacity costs, in
19 the dollar per MWh price, are then added to the hourly marginal energy costs during
20 the 7 X 16 hour on-peak period for the months of June, July, August, and September
21 to determine the full LTAC rate.

22 **121. Q. Do you have any concerns regarding NV Energy's exemplar LCMPE model used**
23 **as a framework to determine the ESA long-term energy rate?**

24 A. Yes. I have concerns regarding NV Energy's use of the grid hour capacity cost as a
25 component of the ESA long-term energy rate, NV Energy's use of the LTAC capacity
26 pricing forecast in the grid hour capacity cost calculation, and the mismatch between
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28 ¹²³ Direct Testimony of Janet Wells at 3-4.

¹²⁴ Supply Side Plan Narrative, Vol. 8 at 309-12 of 393.

1 NV Energy's calculation of the BTGR generation credit and the calculation of the grid
2 hour capacity cost component.

3 **122. Q. What is the grid hour capacity cost and how is it calculated in NV Energy's**
4 **exemplar model?**

5 A. When the underlying ESA renewable energy resource is not producing energy, the
6 ESA customer relies on NV Energy's internal generation to serve its load (referred to
7 as "grid delivered hours"). The cost to the ESA customer from being served by NV
8 Energy's internal generation during grid delivered hours includes a fuel component
9 and capacity component. For the fuel component, the ESA customer is required to
10 pay the BTER and DEAA during grid delivered hours. However, since the ESA
11 customer under the LCMPE tariff receives a credit for the generation capacity
12 component of the BTGR every hour of the year, the BTGR charged to the ESA
13 customer during grid delivered hours does not contain any generation capacity costs
14 and it is necessary to add back a capacity cost to compensate for the ESA customer's
15 use of NV Energy's internal generation. NV Energy refers to this capacity cost as the
16 "grid hour capacity cost" and it is a component of NV Energy's proposed ESA long-
17 term energy rate. NV Energy calculated the grid hour capacity cost to be \$1.04 per
18 MWh of the \$83.41 per MWh ESA long-term energy rate for Nevada Power's
19 exemplar LCMPE model.¹²⁵ The grid hour capacity cost component of the ESA long-
20 term energy rate is fixed for the term of the ESA, unlike the BTGR generation credits
21 that the ESA customers receive, which are updated in each general rate case. NV
22 Energy uses a fixed 25-year average of the forecasted LTAC capacity price as a proxy
23 for the capacity cost of its internal generation resources during grid hours.

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¹²⁵ Tab "ESA Table 1", Column C, Row 22, of Ms. Wells's workpaper "Wells IRP Workpaper NPC LCMPE".

1 **123. Q. How is the grid hour capacity component calculated in NV Energy’s exemplar**
2 **models?**

3 A. First, NV Energy calculated a 25-year average of the forecasted LTAC capacity price
4 from its LTAC rates, which equates to \$52 per MWh in NV Energy’s exemplar
5 LCMPE for Nevada Power.¹²⁶ NV Energy then multiplies the fixed \$52 per MWh by
6 the representative customer’s load for each hour the LTAC has a capacity component
7 to determine the capacity cost to serve that customer in that hour.¹²⁷ Next, NV Energy
8 then sums the hourly capacity costs over the year, which totals \$913,693.33,¹²⁸ and
9 divides it by the 578,083 MWh¹²⁹ delivered to the representative customer during the
10 grid hours to arrive at a \$1.58 per MWh¹³⁰ capacity cost to serve that representative
11 customer. To incorporate the annual \$913,693.33 capacity cost into the ESA long-term
12 energy rate, NV Energy divides it by the customer’s forecasted annual load that is
13 served by the underlying ESA renewable resource, which is 881,635 MWh¹³¹ load in
14 Nevada Power’s exemplar LCMPE model, to obtain the \$1.04 per MWh grid hour
15 capacity cost component of the ESA long-term energy rate.

16 **124. Q. Is the fixed 25-year average of the forecasted LTAC capacity price representative**
17 **of the actual generation capacity cost to serve the eligible customer using NV**
18 **Energy’s internal generation during grid delivered hours?**

19 A. No. Since the LTAC only includes a capacity component during the 7 X 16 hour (7
20 a.m. to 10 p.m.) on-peak period for the months of June, July, August, and September,
21 the exemplar LCMPE model only assesses a capacity cost for any energy delivered to
22 the customer during that time period, yet the customer receives a generation capacity
23 credit for not using the same generation for all 8,760 hours of the year. For example,
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26 ¹²⁶ Tab “Non-PV Hourly LTAC Cost”, Column K, Row 3635, of Ms. Wells’s workpaper “Wells IRP Workpaper NPC LCMPE”.

27 ¹²⁷ *Id.* at Column L, Row 5114.

28 ¹²⁸ *Id.* at Column O, Row 10.

¹²⁹ *Id.* at Column O, Row 9.

¹³⁰ *Id.* at Column O, Row 11.

¹³¹ Tab “ESA Table 1”, Column C, Row 17, of Ms. Wells’s workpaper “Wells IRP Workpaper NPC LCMPE”.

1 the representative customer in Nevada Power’s exemplar LCMPE model only pays a
2 capacity cost in hour ending 22 (10 p.m.) during the month of August and during hour
3 ending 7 (7 a.m.) and hour ending 22 (10 p.m.) during the month of September.¹³² In
4 other words, NV Energy claims there are no capacity costs for the customer to use its
5 internal system generation capacity for energy delivered to the customer outside of
6 those specific hours.

7 Second, even though NV Energy uses a 25-year average of the forecasted
8 LTAC capacity price in the exemplar LCMPE models, that 25-year average LTAC
9 capacity price is fixed for the 25-year ESA term, instead of updating the grid hour
10 capacity cost component of the ESA long-term energy rate to reflect the new
11 forecasted LTAC capacity price in NV Energy’s subsequent triennial IRP filings. This
12 is contrary to the Commission’s discussions and findings in the November 1, 2023,
13 Order in consolidated Docket Nos. 23-02010 and 23-02011¹³³ and the Commission’s
14 March 18, 2022, Modified Final Order in Docket No. 21-06011.¹³⁴

15 **125. Q. Do you agree with NV Energy’s claim that there are no generation capacity costs**
16 **to serve an eligible customer’s load during the hours of 11 p.m. to 6 a.m.?**

17 A. No. I do not. Similar to a net-energy metering customer, the eligible customer is back-
18 stopping its load by relying on NV Energy’s system and NV Energy has to have
19 sufficient generating capacity to serve that customer at any time (possibly even during
20 daylight hours when the underlying ESA renewable energy resource is not able to
21 produce energy) and there is a cost for that service—it is not zero. NV Energy’s cost
22 of service study determines each customer classes’ generation capacity costs at the
23 time of peak system demand and recovers this cost over all hours of the year through
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25 ¹³² Tab “Non-PV Hourly LTAC Cost”, Column L, of Ms. Wells’s workpaper “Wells IRP Workpaper NPC
LCMPE”.

26 ¹³³ Docket Nos. 23-02010, 23-02011, Order at ¶¶ 128-131, issued November 1, 2023. NV Energy’s Application to
27 revise the Large Customer Market Price Energy (“LCMPE”) to set forth when and ESA must be filed with and IRP or
IRP Amendment, a requirement for a true-up or adjustment, and a requirement for a short form statement O, pursuant to
the Order issued in Docket No. 22-03025.

28 ¹³⁴ Docket No. 21-06011, Modified Final Order at ¶¶ 87-89, issued March 18, 2022. Application of Nevada Power
Company d/b/a NV Energy for approval of an Energy Supply Agreement with Resorts World Las Vegas, LLC.

1 the BTGR rates charged to each customer, as evidenced by the generation credits NV
2 Energy lists in Nevada Power’s exemplar LCMPE model. Staff witness Manuel Lopez
3 further discusses how an ESA may impact NV Energy’s cost of service study and rate
4 design.

5 The purpose of the optional LCMPE non-standard fully bundled pricing option
6 tariff is to develop alternative pricing options for large customers who are eligible to
7 receive energy, capacity, and ancillary services from an alternative provider pursuant
8 to NRS Chapter 704B. Although the LCMPE tariff provides large customers with
9 alternative pricing options, the LCMPE customer should **not** be able to circumvent
10 traditional cost of service ratemaking principles and eschew its obligation to pay its
11 fair share of the costs to serve its load. The LCMPE tariff requires that the ESA must
12 be in public interest.¹³⁵ In determining the public interest, the Commission must
13 consider whether non-participating customers of the utility experience increased costs
14 for electric service or forgo the benefit of a reduction of costs for electric service as a
15 result of the ESA.¹³⁶

16 **126. Q. Why is NV Energy’s use of the 25-year average of the forecasted LTAC capacity**
17 **price contrary to the discussions and findings contained in the Commission’s**
18 **Order in consolidated Docket Nos. 23-02010 and 23-02011 and the Modified Final**
19 **Order in Docket No. 21-06001?**

20 A. In regards to a six-year ESA term, the Commission, in consolidated Docket Nos. 23-
21 02010 and 23-02011, had concerns utilizing a fixed LTAC as a proxy when the
22 renewable energy resource is not producing energy because the LTAC itself is updated
23 every triennial IRP.¹³⁷ The Commission’s concerns regarding utilizing a fixed LTAC
24 for a six-year ESA term are exacerbated when fixing the 25-year average of the
25 forecasted LTAC capacity price over 25 years. Over that 25-year ESA term, the
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28 ¹³⁵ Schedule No. LCMPE, PUCN Sheet No. 36Z(19).

¹³⁶ *Id.*

¹³⁷ Docket Nos. 23-02010 and 23-02011, Order at ¶¶ 128-31, issued November 1, 2023.

1 forecasted LTAC capacity price will be updated eight times using a 3-year IRP filing
2 cycle.

3 In regards to the 25-year Resorts World ESA in Docket No. 21-06011, the
4 Commission found that Nevada Power did not meet its burden of showing that the
5 Resorts World ESA, as filed, was in the public interest because of issues the
6 Commission had with reliance on a pricing forecast, without an adjustment, over the
7 period during which the long-term energy rate would be in effect and stated that
8 reliance on a static commodity forecast for the long-term is not appropriate.¹³⁸ The
9 Commission also stated that there should be an ability to update at periodic intervals
10 any long-term energy price that uses a natural gas forward pricing as a component of
11 the calculation and that the modified Resorts World ESA should address why using a
12 single natural gas pricing forecast for a long-term energy price is appropriate.¹³⁹ NV
13 Energy's exemplar LCMPE models are still relying on a pricing forecast, but here it is
14 the LTAC capacity pricing forecast. Furthermore, NV Energy does not adjust or even
15 allow for a true-up to the LTAC capacity pricing forecast over the 25-year period
16 during which the grid hour capacity cost component of the ESA long-term energy rate
17 would be in effect and is not appropriate.

18 **127. Q. What is the BTGR generation capacity credit and how is the annual BTGR**
19 **generation capacity credit calculated?**

20 A. NV Energy appears to extract the generation capacity cost components of the BTGR
21 rate of the ESA customer's otherwise applicable rate class. For example, NV Energy
22 lists a generation capacity cost credit of \$0.00215 per kWh during the summer off-
23 peak period, and \$0.00617 per kWh and \$0.81 per KW during the winter off-peak
24 period for Nevada Power's Large General Service ("LGS") 3-Primary tariff in Nevada
25 Power's exemplar LCMPE model.¹⁴⁰ NV Energy calculates the annual BTGR
26

27 ¹³⁸ Docket No. 21-06001, Modified Final Order at ¶ 67, 87-89, issued March 18, 2022.

28 ¹³⁹ *Id.*

¹⁴⁰ Workpaper "Wells IRP NPC LCMPE", tab "25-Year Forecast BTER+DEAA", column H.

1 generation capacity credit by multiplying the BTGR generation capacity cost
2 components by the energy the eligible customer receives during grid delivered hours
3 for each time-of-use period described above. For example, in the exemplar Nevada
4 Power LCMPE model, NV Energy calculated the BTGR generation capacity credit the
5 eligible customer receives during grid hours to be approximately \$4.3 million
6 annually.¹⁴¹

7 **128. Q. Please describe your concerns regarding NV Energy’s calculation of the grid**
8 **hour capacity cost.**

9 A. I have three main concerns. First, there is a mismatch between how NV Energy
10 evaluates the cost of its internal generation capacity. The eligible customer is either
11 being served or not being served by the same generation capacity. However, NV
12 Energy’s exemplar LCMPE models use two different methodologies to calculate (1)
13 the savings accrued from the customer not using NV Energy’s internal generation
14 during the time the underlying ESA renewable energy resource is producing energy
15 using the BTGR generation capacity credits, and (2) the costs incurred from the
16 customer using NV Energy’s internal generation during grid delivered hours using the
17 25-year average of the forecasted LTAC capacity price. The generation capacity
18 credit should be calculated the same way as the generation capacity cost discussed
19 above. Second, NV Energy’s use of a fixed 25-year average of the forecasted LTAC
20 capacity price as a proxy for the capacity cost of its internal generation resources
21 during grid delivered hours is not representative of NV Energy’s actual cost to serve
22 an eligible customer. Third, NV Energy’s claim that there are no generation capacity
23 costs to serve an eligible customer’s load during grid delivered hours is baseless.

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¹⁴¹ Workpaper “Wells IRP NPC LCMPE”, tab “25-Year Forecast BTER+DEAA”, column M.

1 **129. Q. Does NV Energy’s mismatch between calculating the BTGR generation capacity**
2 **credit and grid hour capacity cost under NV Energy’s exemplar LCMPE models**
3 **result in harm to non-participating customers?**

4 A. Yes. The revenue that is generated by NV Energy through charging the eligible
5 customer the grid hour capacity cost for using NV Energy’s internal generation
6 capacity based upon the 25-year average of the forecasted LTAC capacity price does
7 not equal the BTGR costs associated with the customer’s use of NV Energy’s internal
8 generation during grid delivered hours, and therefore, there is a shortfall in BTGR
9 generation revenues that is not addressed by NV Energy. For example, in the
10 exemplar Nevada Power LCMPE model, NV Energy calculated a \$913,693.33 cost
11 associated with the eligible customer’s use of NV Energy’s generation capacity during
12 grid delivered hours. However, NV Energy provided an approximate \$4.3 million
13 generation capacity credit to the ESA customer during grid delivered hours, leaving a
14 shortfall of approximately \$3.39 million.¹⁴² It is unclear who will be responsible for
15 this shortfall, the remaining customers in the eligible customer’s otherwise applicable
16 rate class, all ratepayers, residential ratepayers, and/or NV Energy’s shareholders.¹⁴³
17 Staff witness Manuel Lopez further discusses how an ESA may impact NV Energy’s
18 cost of service study and rate design.

19 **130. Q. Should NV Energy be required to address this shortfall prior to NV Energy**
20 **requesting Commission approval of any potential ESA under the LCMPE tariff?**

21 A. Yes. NV Energy should be required to address how it intends to incorporate eligible
22 customers in its cost-of-service study and rate design and remove any BTGR revenue
23 shortfalls before the Commission approves any potential ESA that is based on the
24 corresponding LCMPE model supporting that ESA under the LCMPE tariff.
25 However, this is only one factor in the public interest determination of an ESA.
26 Addressing this issue does not automatically ensure that an ESA is in the public
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28 ¹⁴² Workpaper “Wells IRP NPC LCMPE”, tab “25-Year Forecast BTER+DEAA”, column M.

¹⁴³ If the shortfall is borne by NV Energy’s shareholders, the specific harm discussed is mitigated.

1 interest. Staff reserves the right to review each ESA and the corresponding LCMPE
2 model in the docket in which it is filed with the Commission.

3 **131. Q. How can the Commission ensure that NV Energy's use of the grid hour capacity**
4 **cost in its exemplar LCMPE models will not harm non-participating ratepayers?**

5 A. I recommend that the Commission order NV energy to modify its exemplar LCMPE
6 models by removing the BTGR generation credits that the ESA customer receives
7 during grid hours, thereby, charging the eligible customer the full BTGR rates during
8 grid delivered hours. Under this method, the grid hour capacity cost component is
9 removed from the exemplar LCMPE model. Since the customer receives the BGTR
10 generation credits to estimate the savings of not using NV Energy's internal
11 generation the same BTGR generation credits should be used to calculate the costs to
12 the customer for using NV Energy's internal generation during grid hours. Because
13 BTGR rates are updated every GRC, this method does not require any averaging or
14 forecasting.

15 Alternatively, if the Commission prefers to use the LTAC capacity price to
16 measure NV Energy's costs to serve the eligible customer using NV Energy's internal
17 generation (a cost that will ultimately be recovered from ratepayers) during the grid
18 delivered hours, then Staff recommends removing the BTGR generation credits from
19 the LCMPE model and calculating the generation credits for all hours using the same
20 LTAC capacity price. Under this method, the eligible customer will receive generation
21 credits based on the LTAC capacity price during the hours that the underlying
22 generation resource is producing and will pay the full BTGR rates during the grid
23 delivered hours since the generation credits and the capacity costs are calculated by
24 the same LTAC capacity price and offset against each other. Because the LTAC
25 capacity price is updated every IRP, this method does not require any averaging over a
26 long period.

1 **132. Q. Does NV Energy agree that a customer's rate should be based upon the cost of**
2 **providing service to that customer?**

3 A. Yes. NV Energy stated that rates should be based on the cost of providing service to a
4 utility's customers and that properly designed rates should produce revenues from
5 each class of customers which match as closely as possible the cost to serve each class
6 or individual customer.¹⁴⁴ It is perplexing why NV Energy is not following that
7 principle for eligible customers.

8 **133. Q. Why does NV Energy not charge the eligible customer its otherwise applicable**
9 **fully bundled BTGR during grid delivered hours?**

10 A. In a meeting with Staff on Thursday, August 29, 2024, NV Energy stated that the
11 LTAC is used instead of charging the ESA customer its otherwise fully bundled
12 BTGR rate during grid delivered hours because NV Energy's billing system does not
13 have the ability to do so. Upon further inquiry regarding that statement, NV Energy
14 clarified that while that comment was made during the meeting, it was intended to
15 reflect the complexity of having individual tariffs and rates for each eligible customer
16 and the required specialized manual billing.¹⁴⁵

17 **134. Q. Do you agree with NV Energy's clarification regarding the complexity of having**
18 **individual tariffs and rates for each eligible customer that requires specialized**
19 **manual billing, to justify not requiring the customer to pay its full cost to serve?**

20 A. No. Requiring NV Energy to manually bill an eligible customer should not be an
21 excuse to deviate from traditional ratemaking principles. First, I do not agree that
22 requiring the customer to pay its otherwise applicable fully bundled BTGR during grid
23 hours requires a separate tariff for each eligible customer. Second, allowing an
24 eligible customer to eschew paying the full cost to serve its load, as every other NV
25 Energy ratepayer is required to do, because that customer chooses to take electric
26 service under non-standard fully bundled pricing option that requires specialized
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28 ¹⁴⁴ Docket No. 24-02026, NV Energy's Brief at 1, August 20, 2024.

¹⁴⁵ See Attachment AED-33, NV Energy's response to Staff DR 350.

1 billing is nonsensical, deviates from traditional ratemaking principles, and is unfair
2 discriminatory rate making.

3 **135. Q. Is there a requirement for the ESA long-term energy rate to be fixed over the**
4 **ESA term?**

5 A. No. NV Energy claims that a variable ESA rate will make the ESA or LCMPE tariff
6 unattractive to potential customers as they prefer a fixed price ESA rate. However, the
7 Commission has previously held that it was not persuaded that an ESA is required to
8 be set at a fixed price.¹⁴⁶

9 **136. Q. Does requiring the eligible customer to be billed the fully bundled BTGR rate**
10 **associated with its otherwise applicable rate class eliminate all harm of the**
11 **potential ESA to non-participating ratepayers?**

12 A. No. Evaluating the harm, if any, of a potential ESA to non-participants can only be
13 assessed at the time the ESA is filed for approval with the Commission. Although
14 Staff has presented modifications to NV Energy's exemplar LCMPE models to
15 minimize the harm to non-participants, additional modifications to the LCMPE model
16 and/or the ESA may still be required. Staff reserves the right to perform its
17 comprehensive review of each ESA and corresponding LCMPE model at the time the
18 ESA is filed with the Commission.

19 **137. Q. What is your recommendation regarding NV Energy's exemplar LCMPE**
20 **models?**

21 A. I recommend that in lieu of the grid hour capacity cost component of the ESA long-
22 term energy rate in NV Energy's exemplar LCMPE models, the eligible customer
23 should be billed the full BTGR rate of its otherwise applicable rate class for grid
24 delivered energy. Staff witnesses Swetha Venkat summarizes Staff's
25 recommendations regarding NV Energy's request for approval of its exemplar
26 LCMPE models.

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¹⁴⁶ Docket Nos. 23-02010 and 23-02011, Order at ¶¶ 128-31, issued [November 1, 2023].

1 **138. Q. Please summarize Staff's recommendations.**

2 A. Staff recommends that the Commission:

- 3 1. Find that the Commission cannot render a prudency determination regarding NV
4 Energy's request for continued approval of the Greenlink Nevada Project listed in
5 PFR Section 1(g)(xxix), which has a combined budget for Greenlink West,
6 Greenlink North and Common Ties of \$4.128 billion, because the Greenlink
7 Nevada project is a legislatively mandated project;
- 8 2. Deny NV Energy's Prayer for Relief Request 1(j) to designate the Greenlink West
9 and Common Ties projects as critical facilities;
- 10 3. Deny NV Energy's Prayer for Relief Requests 1(k) and 1(l) for construction work
11 in progress in rate base accounting treatment and request to record and include the
12 depreciation expense without carry charges into a regulatory asset for the
13 Greenlink Nevada Project;
- 14 4. Approve NV Energy's Prayer for Relief Request 1(g)(xv) for a Supply Plan
15 addition of the Fort Churchill to Comstock Meadows #2 345 kV transmission line
16 at an incremental cost of \$97.4 million with an in-service date contingent on the
17 meeting the specific customers' loads identified in Q&A 15 of the Direct
18 Testimony of Layne Maxfield;
- 19 5. Approve NV Energy's Prayer for Relief Request 1(g)(vxi) for conditional approval
20 to construct the third and fourth 525/345 kilovolt transformers located at the Ft.
21 Churchill substation at a cost of \$12 million only upon loads connecting at the Ft.
22 Churchill substation materializing;
- 23 6. Approve NV Energy's proposed long-term avoided cost rates listed in PFR Section
24 1(m);
- 25 7. Deny NV Energy's Prayer for Relief Request 1(e) for approval of the
26 recommended annual limits on the total amount of energy and capacity that
27 eligible NRS Chapter 704B customers may be authorized to purchase from
28 providers of new electric resources during the Action Plan period, and the Net

1 Differential Energy Rate of \$0.04165 per kWh, and the variable operations and
2 maintenance credit rate of -\$0.00015 per kWh for the Action Plan period and order
3 NV Energy, as a compliance item, to calculate and file the NRS Chapter 704B
4 annual limits, Net Differential Energy Rate and variable O&M credit rate without
5 removing the loads of customers who do not have a Commission-approved ESA as
6 a compliance item;

7 8. Approve NV Energy's Prayer for Relief Request 1(f) to issue a list of any current
8 and ongoing legislative mandated public policy programs for which eligible
9 customers are required to pay costs, fees, charges or rates pursuant to subsection 8
10 of NRS 704B.310 and order NV Energy, as a compliance item, to clarify how the
11 Commission's Orders to cease recording amounts to the NEM regulatory asset
12 accounts in Docket Nos. 23-06014 and 24-02026 affects the NEM public policy
13 costs NV Energy proposes to charge to eligible customers pursuant to NRS
14 704B.310(8).

15 9. In lieu of the grid hour capacity cost component of the ESA long-term energy rate
16 in NV Energy's exemplar LCMPE models, Staff recommends that the ESA
17 customer should be billed the full BTGR rate of its otherwise applicable rate class
18 for grid delivered energy. Staff witnesses Swetha Venkat summarizes Staff's
19 recommendations regarding NV Energy's request for approval of its exemplar
20 LCMPE models.

21 **139. Does this conclude your testimony?**

22 A. Yes. It does.
23
24
25
26
27
28

Adam Danise, P. E.

Work History

11/09 – Present Public Utilities Commission of Nevada

Regulatory Engineer

Provide engineering analysis and testimony for the Public Utilities Commission of Nevada involving resource planning for Nevada Power Company and Sierra Pacific Power Company.

04/09 – 11/09 USA Repository Services, LLC

Engineer III – Yucca Mountain Project

Responded to the U.S. Nuclear Regulatory Commission (NRC) data requests regarding the U.S. Department of Energy (DOE) License Application to Construct a High-Level Waste Geologic Repository at Yucca Mountain, Nevada. Served as a contractor point of contact for the electrical and control design sections of the DOE License Application.

07/07 – 04/09 Bechtel SAIC Company, LLC

Engineer III – Yucca Mountain Project

Responded to the U.S. Nuclear Regulatory Commission (NRC) data requests regarding the U.S. Department of Energy (DOE) License Application to Construct a High-Level Waste Geologic Repository at Yucca Mountain, Nevada. Served as a contractor point of contact for the electrical and control design sections of the DOE License Application.

11/04 – 07/07 Joint Test, Tactics, and Training, LLC (JT3)

Engineer II – J-Tech Range

Radar analyst for early warning and acquisition radars. Developed specifications for radar performance and conducted testing to verify the radar met developed specifications. Also conducted RF field measurements and assisted in troubleshooting and repair of RF components.

01/04 – 10/04 Bechtel SAIC Company, LLC

Engineer – Yucca Mountain Project

Developed performance indicators to track the performance of licensing processes, and served as the Licensing Support Network (LSN) point of contact for the Licensing Department. The LSN is document discovery database for the NRC licensing proceedings regarding DOE's License Application.

Education

August 1999 – December 2003 University of Nevada – Las Vegas

Bachelor of Science in Electrical Engineering

Professional

March 2011 – Licensed Professional Electrical Engineer – State of Nevada – License No. 021192

Greenlink Nevada Transmission Project – Lines

Greenlink Nevada Transmission project comprises of three primary line segments.

Greenlink West:

- Harry Allen – Northwest 525 kilovolt transmission line
- Northwest – Amargosa 525 kilovolt transmission line
- Amargosa – Esmeralda 525 kilovolt transmission line
- Esmeralda – Fort Churchill 525 kilovolt transmission line

Greenlink North:

- Fort Churchill – Lander 525 kilovolt transmission line
- Lander – Robinson Summit 525 kilovolt transmission line

Common Ties:

- Fort Churchill – Comstock Meadows #1 – 345 kilovolt transmission line
- Fort Churchill – Comstock Meadows #2 – 345 kilovolt transmission line
- Fort Churchill – Mira Loma – 345 kilovolt transmission line

Greenlink Nevada Transmission Project – Telecommunications

Greenlink Nevada Transmission project includes several telecommunication sites along transmission line routes. The telecommunication technology, locations, and equipment to be installed at these telecommunication terminals is currently being designed and engineered.

Greenlink Nevada Transmission Project – Substations
(Based on current engineering – 7/1/2024)

FORT CHURCHILL - GREENFIELD		AMERGOSA - GREENFIELD		ESMERALDA - GREENFIELD		SITE EXPANSION	
Qty. (EA)		Qty. (EA)		Qty. (EA)		Qty. (EA)	
2	525/345 kV 600 MVA Transformers	11	525 kV 63 kA Breakers (9 dead / 2 live)	10	525 kV 63 kA Breakers (8 dead / 2 live)		NORTHWEST
5	525 kV 50 MVAR Shunt Reactors	4	525 kV 60 MVAR Shunt Reactors (including 1 spare)	4	525 kV 50 MVAR Shunt Reactors	2	525 kV Line Terminals
2	525 kV 1135 MVAR Series Capacitor	2	525 kV 720 & 1135 MVAR Series Capacitor	2	525 kV 1135 MVAR Series Capacitor	5	525 kV 63 kA Breakers (4 dead / 1 live)
2	345/230 kV 300 MVA Transformers	20	525 kV CCVT	20	525 kV CCVT	1	525 kV Shunt Reactors 60 MVAR
2	345/120 kV 280 MVA Transformers	2	525/230 kV, 600MVA 3 phase Transformers	3	525 kV CT/PT Combo Units	1	525 kV 720 MVAR Series Capacitor
10	525 kV 63 kA Breakers (8 dead / 2 live)	6	230 kV 63 kA Breakers	2	525/230kV, 600MVA 3 phase Transformers	12	525 kV CCVT
18	345 kV 63 kA Breakers	14	230 kV CCVT	6	230 kV 63 kA Breakers	1	Storage enclosure
5	230 kV 63 kA Breakers	1	Control enclosure	14	230 kV CCVT		ROBINSON SUMMIT
17	120 kV 63 kA Breakers	1	Generator	1	Generator	1	525 kV Line Terminals
2	230 kV SSVT					5	525 kV 63 kA Breakers
4	120 kV SSVT					2	525 kV Shunt Reactors 50 MVAR
23	525 kV CCVT					1	525 kV 1135MVAR Series Capacitor
31	345 kV CCVT					8	525 kV CCVT
9	230 kV CCVT					1	Control enclosure
31	120 kV CCVT						
4	Control enclosures						
4	Battery enclosures						
1	Storage enclosure						

LANDER COLLECTOR - GREENFIELD		EXISTING SITES	
Qty. (EA)		Qty. (EA)	
10	525 kV 63 kA Breakers (8 dead / 2 live)		COMSTOCK
4	525 kV 50 MVAR Shunt Reactors	1	345 kV Line Terminal
2	525 kV 1135 MVAR Series Capacitor	5	345 kV 63kA Breakers
20	525 kV CCVT	3	345 kV CCVT
2	525/230 kV, 600MVA 3 phase Transformers		HARRY ALLEN
6	230 kV 63 kA Breakers	1	525 kV Line Terminal
14	230 kV CCVT	3	525 kV 63 kA Breakers
2	Control enclosures		MIRA LOMA
2	Battery enclosures	1	345 kV Line Terminal
		2	345 kV 63kA Breakers
		6	345 kV CCVT

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 **REQUEST DATE:** 07-09-2024
REQUEST NO: Staff 124 **KEYWORD:** greenlink project cost with afudc; update fig TP-18
REQUESTER: Danise **RESPONDER:** Lateef, Shahzad

REQUEST:

Reference: Greenlink Project Cost With AUFDC

Question: Please provide the total cost of the Greenlink Project inclusive of AFUDC. Additionally, please provide an update to Figure TP-18 to include AFUDC.

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENT CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: One (Zipped)

RESPONSE:

Total cost forecast of the Greenlink Nevada transmission project, including AFUDC, is \$4,705.4m.

An update of Figure TP-18 is provided in the attached document "24-05041 - Staff 124 - Attach 01.pdf".

Please note that prior Commission approvals and Companies' update provided in Docket No. 23-08015 did not include AFUDC.

GREENLINK NEVADA TRANSMISSION FORECAST (INCLUDING AFUDC)

	Original Estimate as Approved	July 2023 Update (Docket 23-08015)	May 2024 Update	Estimated AFUDC	Total
	Does not include AFUDC	Does not include AFUDC	Does not include AFUDC		Includes AFUDC
Greenlink West	\$1,219.9m	\$1,415.1m	\$1,904.7m	\$222.3m	\$2,127m
Greenlink North	\$854.1m	\$1,050.6m	\$1,492.5m	\$154.7m	\$1,647.2m
Common Ties	\$410m	\$461.5m	\$841.4m	\$89.8m	\$931.2m
Total	\$2,484m	2,927.2m	\$4,238.6m	\$466.8m	\$4,705.4m

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 **REQUEST DATE:** 09-04-2024

REQUEST NO: Staff 349 **KEYWORD:** greenlink AFUDC amount;
staff 124 sarda table 1
exhibit sarda-direct-2

REQUESTER: Danise **RESPONDER:** Sarda, Christopher (NV Energy)

REQUEST:

Reference: Greenlink AFUDC Amount

Question: NV Energy's response to Staff DR 124 estimated the total AFUDC for the Greenlink Nevada Project to be approximately \$466.8 million. However, Sarda Table-1 and Exhibit Sarda-Direct-2 of the Direct Testimony of Christopher Sarda estimated the total AFUDC for the Greenlink Nevada Project to be approximately \$641.8 million. Please reconcile the different AFUDC amounts provided in the response to Staff DR 124 and in the Direct Testimony of Christopher Sarda and identify the correct AFUDC amount.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

The AFUDC amount in Staff DR 124 is the accurate amount. The difference between the AFUDC amounts in Mr. Sarda's testimony and Staff 124 are due to the AFUDC calculation method. The amounts in Mr. Sarda's testimony were calculated in the context of the CWIP incentive and calculated high-level AFUDC amounts, which did not account for different AFUDC rates pre-2024, mid-year in-service dates, and monthly cash flow spending. Staff DR 124 presents a more precise monthly AFUDC calculation, which accounts for changing AFUDC rates, mid-year in-service dates and monthly cash flow spend.

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 **REQUEST DATE:** 07-09-2024
REQUEST NO: Staff 121 **KEYWORD:** greenlink project committed expenditures; each component breakdown
REQUESTER: Danise **RESPONDER:** Lateef, Shahzad

REQUEST:

Reference: Greenlink Project Committed Expenditures

Question: Please provide the total expenditures NV Energy has currently committed for the Greenlink Project. Additionally, please provide a breakdown of the total committed expenditures for each component of the Greenlink Project.

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENT CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

As of June 30, 2024, NV Energy has committed the following expenditures for the Greenlink project, Greenlink West - \$132 million Greenlink North - \$36 million Common Ties - \$59 million Total - \$227 million

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 **REQUEST DATE:** 07-09-2024
REQUEST NO: Staff 122 **KEYWORD:** greenlink project committed expenditures; total 2024
REQUESTER: Danise **RESPONDER:** Lateef, Shahzad

REQUEST:

Reference: Greenlink Project Committed Expenditures

Question: Please provide the total amount of expenditures NV Energy expects to commit by the end of 2024.

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENT CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

By the end of 2024, NV Energy expects to commit \$626 million for the Greenlink Project. Specifically, these expenditures include,

Greenlink West - \$355 million
Greenlink North - \$119 million
Common Ties - \$152 million

SUPPLEMENT NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 **REQUEST DATE:** 08-13-2024

REQUEST NO: Staff 172 Supplement **KEYWORD:** staff 95; greenlink commission approval to construct, application prayer, critic

REQUESTER: Danise **RESPONDER:** Lateef, Shahzad

REQUEST:

Reference: Response to Staff DR 95

Question: In its response to Staff DR 95, NV Energy provided Attachment 1 listing the associated line segments, substations and major equipment of the Greenlink Nevada Project.

1. For each item listed in Attachment 1, please confirm or deny whether NV Energy is requesting Commission approval to construct each item in the instant Docket.
2. If confirmed for that specific item in Part 1, please identify the specific Prayer for Relief in the Application the pertains to the item and explain whether that item is part of the Greenlink North, Greenlink West, Harry Allen to Northwest 525 kV transmission line, common ties, or another project.
2. If confirmed for that specific item in Part 1, please confirm or deny whether NV Energy is requesting critical facility status for that specific item and, if so, what specific financial incentive NV Energy is requesting.
3. If denied for that specific item in Part 1, please explain when NV Energy intends seeking Commission approval of that specific item.

ORIGINAL RESPONSE:

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENT CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: One (Zipped)

RESPONSE:

The response to this request is provided in attachment "24-05041 - Staff 172 - Attach 01.pdf"

SUPPLEMENTAL RESPONSE:

SUPPLEMENT : 1

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENT CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: One (Zipped)

RESPONSE:

Supplemental response to include transformers at Greenlink Nevada substations is provided in the attached "24-05041 - Staff 172 Supplement - Attach 01.pdf" Please note a correction on page 4 of the attachment, as Fort Churchill substation is part of Common Ties and not Greenlink West as previously stated.

Greenlink Nevada Transmission Project – Lines

Greenlink Nevada Transmission project comprises of three primary line segments.

Greenlink West:

- Harry Allen – Northwest 525 kilovolt transmission line
- Northwest – Amargosa 525 kilovolt transmission line
- Amargosa – Esmeralda 525 kilovolt transmission line
- Esmeralda – Fort Churchill 525 kilovolt transmission line

Greenlink North:

- Fort Churchill – Lander 525 kilovolt transmission line
- Lander – Robinson Summit 525 kilovolt transmission line

Common Ties:

- Fort Churchill – Comstock Meadows #1 – 345 kilovolt transmission line
- Fort Churchill – Comstock Meadows #2 – 345 kilovolt transmission line
- Fort Churchill – Mira Loma – 345 kilovolt transmission line

Greenlink Nevada Transmission Project – Telecommunications

Greenlink Nevada Transmission project includes several telecommunication sites along transmission line routes. The telecommunication technology, locations, and equipment to be installed at these telecommunication terminals is currently being designed and engineered.

Greenlink Nevada Transmission Project – Substations
(Based on current engineering – 7/1/2024)

FORT CHURCHILL - GREENFIELD		AMERGOSA - GREENFIELD		ESMERALDA - GREENFIELD		SITE EXPANSION	
Qty. (EA)		Qty. (EA)		Qty. (EA)		Qty. (EA)	
2	525/345 kV 600 MVA Transformers	11	525 kV 63 kA Breakers (9 dead / 2 live)	10	525 kV 63 kA Breakers (8 dead / 2 live)		NORTHWEST
5	525 kV 50 MVAR Shunt Reactors	4	525 kV 60 MVAR Shunt Reactors (including 1 spare)	4	525 kV 50 MVAR Shunt Reactors	2	525 kV Line Terminals
2	525 kV 1135 MVAR Series Capacitor	2	525 kV 720 & 1135 MVAR Series Capacitor	2	525 kV 1135 MVAR Series Capacitor	5	525 kV 63 kA Breakers (4 dead / 1 live)
2	345/230 kV 300 MVA Transformers	20	525 kV CCVT	20	525 kV CCVT	1	525 kV Shunt Reactors 60 MVAR
2	345/120 kV 280 MVA Transformers	2	525/230 kV, 600MVA 3 phase Transformers	3	525 kV CT/PT Combo Units	1	525 kV 720 MVAR Series Capacitor
10	525 kV 63 kA Breakers (8 dead / 2 live)	6	230 kV 63 kA Breakers	2	525/230kV, 600MVA 3 phase Transformers	12	525 kV CCVT
18	345 kV 63 kA Breakers	14	230 kV CCVT	6	230 kV 63 kA Breakers	1	Storage enclosure
5	230 kV 63 kA Breakers	1	Control enclosure	14	230 kV CCVT		ROBINSON SUMMIT
17	120 kV 63 kA Breakers	1	Generator	1	Generator	1	525 kV Line Terminals
2	230 kV SSVT					5	525 kV 63 kA Breakers
4	120 kV SSVT					2	525 kV Shunt Reactors 50 MVAR
23	525 kV CCVT					1	525 kV 1135MVAR Series Capacitor
31	345 kV CCVT					8	525 kV CCVT
9	230 kV CCVT					1	Control enclosure
31	120 kV CCVT						
4	Control enclosures						
4	Battery enclosures						
1	Storage enclosure						

LANDER COLLECTOR - GREENFIELD		EXISTING SITES	
Qty. (EA)		Qty. (EA)	
10	525 kV 63 kA Breakers (8 dead / 2 live)		COMSTOCK
4	525 kV 50 MVAR Shunt Reactors	1	345 kV Line Terminal
2	525 kV 1135 MVAR Series Capacitor	5	345 kV 63kA Breakers
20	525 kV CCVT	3	345 kV CCVT
2	525/230 kV, 600MVA 3 phase Transformers		HARRY ALLEN
6	230 kV 63 kA Breakers	1	525 kV Line Terminal
14	230 kV CCVT	3	525 kV 63 kA Breakers
2	Control enclosures		MIRA LOMA
2	Battery enclosures	1	345 kV Line Terminal
		2	345 kV 63kA Breakers
		6	345 kV CCVT

Greenlink Nevada Transmission Project – Substations
Response to DR 712

Line Segment/Substation	Please confirm or deny whether NV Energy is requesting Commission approval to construct each item in the instant Docket.	Please identify the specific Prayer for Relief in the Application the pertains to the item and explain whether that item is part of the Greenlink North, Greenlink West, Harry Allen to Northwest 525 kV transmission line, common ties, or another project.	Please confirm or deny whether NV Energy is requesting critical facility status for that specific item and, if so, what specific financial incentive NV Energy is requesting
Harry Allen – Northwest 525 kilovolt transmission line	Yes	1(g)(xxix) Greenlink West Prior approval received in docket 21-06001	No (Already designated as a Critical Facility) Requesting Construction Work in Progress incentive
Northwest – Amargosa 525 kilovolt transmission line	Yes	1(g)(xxix) Greenlink West Prior approval received in docket 20-07023	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive
Amargosa – Esmeralda 525 kilovolt transmission line	Yes	1(g)(xxix) Greenlink West Prior approval received in docket 20-07023	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive
Esmeralda – Fort Churchill 525 kilovolt transmission line	Yes	1(g)(xxix) Greenlink West Prior approval received in docket 20-07023	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive
Fort Churchill – Lander 525 kilovolt transmission line	Yes	1(g)(xxix) Greenlink North Prior approval received in docket 21-06001	No (Already designated as a Critical Facility) Requesting Construction Work in Progress incentive

Lander – Robinson Summit 525 kilovolt transmission line	Yes	1(g)(xxix) Greenlink North Prior approval received in docket 21-06001	No (Already designated as a Critical Facility) Requesting Construction Work in Progress incentive
Fort Churchill – Comstock Meadows #1 – 345 kilovolt transmission line	Yes	1(g)(xxix) Common Ties Prior approval received in docket 20-07023	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive
Fort Churchill – Comstock Meadows #2 – 345 kilovolt transmission line	Yes	1(g)(xv) Common Ties Prior approval for design, permitting, and engineering received in docket 20-07023 Construction approval requested in docket 24-05041	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive
Fort Churchill – Mira Loma – 345 kilovolt transmission line	Yes	1(g)(xxix) Common Ties Prior approval received in docket 20-07023	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive
Fort Churchill Substation	Yes	1(g)(xxix) Common Ties Prior approval received in docket 20-07023	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive
Amargosa Substation	Yes	1(g)(xxix) Greenlink West Prior approval received in docket 20-07023	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive
Esmeralda Substation	Yes	1(g)(xxix) Greenlink West Prior approval received in docket 20-07023	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive
Lander Substation	Yes	1(g)(xxix) Greenlink North	No (Already designated as a Critical Facility)

Northwest Substation	Yes	Prior approval received in docket 21-06001 1(g)(xxix) Greenlink West Prior approval received in docket 20-07023	Requesting Construction Work in Progress incentive Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive
Robinson Summit Substation	Yes	1(g)(xxix) Greenlink North Prior approval received in docket 21-06001	No (Already designated as a Critical Facility) Requesting Construction Work in Progress incentive
Harry Allen Substation	Yes	1(g)(xxix) Greenlink West Prior approval received in docket 21-06001	No (Already designated as a Critical Facility) Requesting Construction Work in Progress incentive
Comstock Meadows Substation	Yes	1(g)(xxix) Common Ties Prior approval received in docket 20-07023	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive
Mira Loma Substation	Yes	1(g)(xxix) Common Ties Prior approval received in docket 20-07023	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive

Substation/Apparatus	Please confirm or deny whether NV Energy is requesting Commission approval to construct each item in the instant Docket.	Please identify the specific Prayer for Relief in the Application the pertains to the item and explain whether that item is part of the Greenlink North, Greenlink West, Harry Allen to Northwest 525 kV transmission line, common ties, or another project.	Please confirm or deny whether NV Energy is requesting critical facility status for that specific item and, if so, what specific financial incentive NV Energy is requesting
Fort Churchill Substation 2 – 525/345 kV 600 MVA transformers	Yes, as a part of Fort Churchill Substation	1(g)(xxix), as a part of Fort Churchill Substation/Common Ties Common Ties Prior approval for Fort Churchill Substation received in docket 20-07023	Yes (Requesting Critical Facility designation for Fort Churchill substation) Requesting Construction Work in Progress incentive for Fort Churchill substation
Fort Churchill Substation 2 – 345/230 kV 300 MVA transformers	Yes, as a part of Fort Churchill Substation	1(g)(xxix), as a part of Fort Churchill Substation/Common Ties Common Ties Prior approval for Fort Churchill Substation received in docket 20-07023	Yes (Requesting Critical Facility designation for Fort Churchill substation) Requesting Construction Work in Progress incentive for Fort Churchill substation
Fort Churchill Substation 2 – 345/120 kV 280 MVA transformers	Yes, as a part of Fort Churchill Substation	1(g)(xxix), as a part of Fort Churchill Substation/Common Ties Common Ties	Yes (Requesting Critical Facility designation for Fort Churchill substation)

<p>Amargosa Substation 2 – 525/230 kV 600 MVA transformers</p>	<p>Yes, as a part of Amargosa Substation</p>	<p>Prior approval for Fort Churchill Substation received in docket 20-07023</p> <p>1(g)(xxix), as a part of Amargosa Substation/Greenlink West</p> <p>Greenlink West</p> <p>Prior approval for Amargosa Substation Buildout received in docket 23-08015</p>	<p>Requesting Construction Work in Progress incentive for Fort Churchill substation</p> <p>Yes (Requesting Critical Facility designation for Amargosa Substation)</p> <p>Requesting Construction Work in Progress incentive for Amargosa Substation</p>
<p>Esmeralda Substation 2 – 525/230 kV 600 MVA transformers</p>	<p>Yes, as a part of Esmeralda Substation</p>	<p>1(g)(xxix), as a part of Esmeralda Substation/Greenlink West</p> <p>Greenlink West</p> <p>Prior approval for Esmeralda Substation Buildout received in docket 23-08015</p>	<p>Yes (Requesting Critical Facility designation for Esmeralda Substation)</p> <p>Requesting Construction Work in Progress incentive for Esmeralda Substation</p>
<p>Lander Substation 2 – 525/230 kV 600 MVA transformers</p>	<p>Yes, as a part of Lander Substation</p>	<p>1(g)(xxix), as a part of Lander Substation/Greenlink North</p> <p>Greenlink North</p> <p>Prior approval for Lander Substation received in docket 21-06001</p>	<p>Yes (Requesting Critical Facility designation for Lander Substation)</p> <p>Requesting Construction Work in Progress incentive for Lander Substation</p>

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO:	24-05041	REQUEST DATE:	08-29-2024
REQUEST NO:	Staff 337	KEYWORD:	staff 294; lander substation two transformers ordered
REQUESTER:	Sinclair	RESPONDER:	Lateef, Shahzad

REQUEST:

Reference: Staff DR 294

Question: Please provide the date and documentation for the two transformers ordered for the Lander Substation.

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENT CONFIDENTIAL (yes or no): Yes

Note: The confidential attachment(s) will not be available on the Company's website

JUSTIFICATION FOR CLAIM OF CONFIDENTIALITY: The attachment provides commercially sensitive information, negotiated material pricing information.

TOTAL NUMBER OF ATTACHMENTS: One (Zipped)

RESPONSE:

The attached invoice (24-05041 - Staff 294 - Attach 01.pdf), dated July 17, 2023, from Fortune Electric shows NV Energy's order for 6 - 525/230 kV transformers. Two transformers were ordered for each of Lander, Amargosa, and Esmeralda substations.

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 REQUEST DATE: 07-22-2024

REQUEST NO: Staff 171 KEYWORD: staff 107 provide cancelled
purchase date esmeralda
amargosa transformer
buildout

REQUESTER: Sinclair RESPONDER: Lateef, Shahzad

REQUEST:

Reference: Staff DR 107

Question: Please provide the date that NV Energy cancelled the purchase order for the Esmeralda and Amargosa transformer buildout. Include the documentation showing the cancellation and a breakdown of any costs incurred on these projects.

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENT CONFIDENTIAL (yes or no): Yes

Note: The confidential attachment(s) will not be available on the Company's website

JUSTIFICATION FOR CLAIM OF CONFIDENTIALITY: The attached invoice from the vendor provides material costs as negotiated between NV Energy and the vendor. Disclosure of the negotiated prices of materials may harm the Companies' negotiating position.

TOTAL NUMBER OF ATTACHMENTS: One Confidential (Zipped)

RESPONSE:

NV Energy notified the vendor of its intent to cancel two - 525/230 kV transformers for Amargosa Substation on September 25, 2023. That decision was based on Amargosa Solar requesting transmission interconnection and service, taking 1,300 MW of Amargosa capacity. That left no room for other 230 kV interconnections without building additional lines, as Amargosa Solar would have taken almost all of the remaining Greenlink West and Amargosa Substation capacity. In an event that Amargosa Solar was cancelled and the Commission approved unconditional buildout of Amargosa and Esmeralda substations, the Companies had

the option to use one of Esmeralda transformers for Amargosa substation. The timing of cancellation was to avoid an increase of 10 percent in cancellation fees.

Based on the cancellation fee schedule, NV Energy was assessed a cancellation fee of \$707,200 for each transformer for a total cancellation fee of \$1,414,400 for the two - 525/230 kV transformers at Amargosa substation.

The vendor provided an invoice, dated October 6, 2023, that included the cancellation fees. Line items #5 and #6 on page 2 of the attachment "24-05041 - Staff 171 - Attach 01.pdf" provides the cancellation fee for 2 - 525/230 kV transformers for Amargosa Substation.

NV Energy notified the vendor of its intent to cancel 2 - 525/230 kV transformers for Esmeralda substation on February 12, 2024. Based on the cancellation fee schedule, NV Energy was assessed a cancellation fee of \$1,414,400 for each transformer for a total cancellation fee of \$2,828,800 for two - 525/230 kV transformers for Esmeralda substation. To date, NV Energy has not received the next invoice from the vendor that will reflect cancellation costs of Esmeralda 525/230 kV transformers.

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO:	24-05041	REQUEST DATE:	08-29-2024
REQUEST NO:	Staff 338	KEYWORD:	staff 294; amargosa esmeralda projects not going forward, projects approved 23-0
REQUESTER:	Sinclair	RESPONDER:	Lateef, Shahzad

REQUEST:

Reference: Staff DR 294

Question: Please explain where the Company has informed the Commission that they are not procuring the 2 transformers and are not going forward with the Amargosa and Esmeralda projects, given that the Commission approved those projects in Docket No. 23-08015, Ordering Paragraph 293.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

The Company had initiated procurement of 4 - 525/230 kV transformers for Amargosa (2 transformers) and Esmeralda (2 transformers) substation 230 kV buildout. The orders were placed to mitigate the supply chain risk associated with long lead time materials.

The Company cancelled the pre-order of 2 - 525/230 kV transformers planned for Amargosa substation 230 kV buildout based on a large 525 kV interconnection request for a designated network resource. A large 525 kV interconnection at Amargosa substation would significantly reduce interconnection capacity for 230 kV interconnection at the substation. The interconnection request was received after the Company had filed the 5th amendment to its 2021 IRP in Docket 23-08015.

The Company cancelled the pre-order of 2 - 525/230 kV transformers planned for Esmeralda substation 230 kV buildout after the hearings concluded on Docket 23-08015 (5th amendment to the Company's 2021 IRP). As provided in the final order on Docket No 23-08015, the Commission directed NV Energy to record all costs associated with Amargosa and Esmeralda

230 kV buildouts in plant for future use until the 230 kV facilities are serving additional customer load or related large generator interconnection agreements are entered into. To date, the Company has not entered into any 230 kV generator interconnection agreements at Amargosa and Esmeralda substations. The Company fully intends to move forward with the construction of 230 kV facilities at Amargosa and/or Esmeralda substations once it enters into generator interconnection agreements that require 230 kV facilities at these substations. Once the Company enters into such generator interconnection agreements, the Company will restart the procurement process for required transformers.

The timing of cancellation of 525/230 kV transformers for Amargosa and Esmeralda substations was based on increasing cancellation fees based on transformers design, engineering, and manufacturing milestones. The cancellation of current order for the 525/230 kV transformers for Amargosa and Esmeralda substations does not represent Company's intent to not move forward with the 230 kV buildout at Amargosa and/or Esmeralda substations, when needed, as approved by the Commission in Docket No. 23-08015

SUPPLEMENT NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO:	24-05041	REQUEST DATE:	09-16-2024
REQUEST NO:	BCP 12-03 Supplement	KEYWORD:	Greenlink Staff 172 supplement attachment; reconcile current budget \$4.128 billi
REQUESTER:	BCP	RESPONDER:	Lateef, Shahzad

REQUEST:

Reference: Greenlink, Supplemental Staff 172 Attachment

Question: Regarding Supplemental Staff 172 Attachment, please provide an electronic copy of a schedule that reconciles the current budget estimate of \$4.128 billion excluding AFUDC for each of the Greenlink transmission lines on page 1 and each substation category on page 2. Explain whether and to what extent each budget item sought above includes contingency and applied NVE overhead amounts. In addition, regarding the Lander Substation (2) 525/230 kV 600 MVA transformers referenced on page 6, reconcile the Greenlink budget estimates subject to 21-06001 for (2) identical 525/230 kV 600 MVA transformers.

SUPPLEMENTAL RESPONSE:

SUPPLEMENT : 1

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENT CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: One (Zipped)

RESPONSE:

As per BCP request, the non-confidential version of the previously shared confidential attachment is provided in attachment "24-05041 - BCP 12-03 - Attach 03.pdf"

Greenlink Nevada Transmission Project – Lines

Response to BCP 12-03

Greenlink Nevada Transmission project comprises of three primary line segments.

Greenlink West:

- Harry Allen – Northwest 525 kilovolt transmission line
- Northwest – Amargosa 525 kilovolt transmission line
- Amargosa – Esmeralda 525 kilovolt transmission line
- Esmeralda – Fort Churchill 525 kilovolt transmission line

Greenlink North:

- Fort Churchill – Lander 525 kilovolt transmission line
- Lander – Robinson Summit 525 kilovolt transmission line

Common Ties:

- Fort Churchill – Comstock Meadows #1 – 345 kilovolt transmission line
- Fort Churchill – Comstock Meadows #2 – 345 kilovolt transmission line
- Fort Churchill – Mira Loma – 345 kilovolt transmission line

Greenlink Nevada Transmission Project – Telecommunications

Greenlink Nevada Transmission project includes several telecommunication sites along transmission line routes. The telecommunication technology, locations, and equipment to be installed at these telecommunication terminals is currently being designed and engineered.

Greenlink Nevada Transmission Project – Substations
(Based on current engineering – 7/1/2024) – Response to BCP 12-03

* Material and construction costs associated with the 2 – 525/230 kV transformers, 6 – 230 kV circuit breakers, and 14 – 230 kV CCVTs (highlighted above) at Esmeralda and Amargosa substations are not included in Greenlink forecast as provided in this docket. The 230 kV buildout of Amargosa and Esmeralda substations was approved by the Commission in Docket # 23-08015, based on large generator interconnection agreements or customer load needs. NV Energy intends to order materials and start construction on the 230 kV sections of Amargosa and Esmeralda substations once such interconnection agreements are executed.

Greenlink Nevada Transmission Project
Response to BCP 12-03

Line Segment/Substation	Please confirm or deny whether NV Energy is requesting Commission approval to construct each item in the instant Docket.	Please identify the specific Prayer for Relief in the Application to the item and explain whether that item is part of the Greenlink North, Greenlink West, Harry Allen to Northwest 525 kV transmission line, common ties, or another project.	Please confirm or deny whether NV Energy is requesting critical facility status for that specific item and, if so, what specific financial incentive NV Energy is requesting	Budget Forecast (\$ thousand)
Harry Allen – Northwest 525 kilovolt transmission line	Yes	1(g)(xxix) Greenlink West Prior approval received in docket 21-06001	No (Already designated as a Critical Facility) Requesting Construction Work in Progress incentive	\$173,921.4
Northwest – Amargosa 525 kilovolt transmission line	Yes	1(g)(xxix) Greenlink West Prior approval received in docket 20-07023	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive	\$342,432.9
Amargosa – Esmeralda 525 kilovolt transmission line	Yes	1(g)(xxix) Greenlink West Prior approval received in docket 20-07023	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive	\$408,743.4
Esmeralda – Fort Churchill 525 kilovolt transmission line	Yes	1(g)(xxix) Greenlink West Prior approval received in docket 20-07023	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive	\$458,095.9

Greenlink Nevada Transmission Project
Response to BCP 12-03

Fort Churchill – Robinson Summit 525 kilovolt transmission line	Yes	1(g)(xxix) Greenlink North Prior approval received in docket 21-06001	Requesting Construction Work in Progress incentive	No (Already designated as a Critical Facility) Requesting Construction Work in Progress incentive	\$1,159,130.7
Fort Churchill – Comstock Meadows #1 – 345 kilovolt transmission line	Yes	1(g)(xxix) Common Ties Prior approval received in docket 20-07023	Requesting Construction Work in Progress incentive	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive	\$121,492.8
Fort Churchill – Comstock Meadows #2 – 345 kilovolt transmission line	Yes	1(g)(xv) Common Ties Prior approval for design, permitting, and engineering received in docket 20-07023 Construction approval requested in docket 24-05041	Requesting Construction Work in Progress incentive	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive	\$100,030.7
Fort Churchill – Mira Loma – 345 kilovolt transmission line	Yes	1(g)(xxix) Common Ties Prior approval received in docket 20-07023	Requesting Construction Work in Progress incentive	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive	\$135,494.6
Fort Churchill Substation	Yes	1(g)(xxix) Common Ties Prior approval received in docket 20-07023	Requesting Construction Work in Progress incentive	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive	\$448,234.3

Greenlink Nevada Transmission Project
Response to BCP 12-03

Amargosa Substation	Yes	1(g)(xxix) Greenlink West Prior approval received in docket 20-07023	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive	\$203,653.9
Amargosa Substation (230 kV Buildout)	Commission approval received in Docket 23-08105 based on interconnection agreements or customer load	Not included in the Prayer for Relief Greenlink West Prior approval received in docket 23-08015	Yes (Requesting Critical Facility designation as an extension of Amargosa Substation) Requesting Construction Work in Progress incentive	(Not Included in Forecast as presented in this docket)
Esmeralda Substation	Yes	1(g)(xxix) Greenlink West Prior approval received in docket 20-07023	Yes (Requesting Critical Facility designation as an extension of Esmeralda Substation) Requesting Construction Work in Progress incentive	\$182,307.4
Esmeralda Substation (230 kV Buildout)	Commission approval received in Docket 23-08105 based on interconnection agreements or customer load	Not included in the Prayer for Relief Greenlink West Prior approval received in docket 23-08015	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive	(Not Included in Forecast as presented in this docket)
Lander Substation	Yes	1(g)(xxix) Greenlink North Prior approval received in docket 21-06001	No (Already designated as a Critical Facility) Requesting Construction Work in Progress incentive	\$264,635.9
Northwest Substation	Yes	1(g)(xxix) Greenlink West	Yes (Requesting Critical Facility designation)	\$109,730.2

Greenlink Nevada Transmission Project
Response to BCP 12-03

		Prior approval received in docket 20-07023	Requesting Construction Work in Progress incentive	
Robinson Summit Substation	Yes	1(g)(xxix) Greenlink North Prior approval received in docket 21-06001	No (Already designated as a Critical Facility) Requesting Construction Work in Progress incentive	\$68,695.1
Harry Allen Substation	Yes	1(g)(xxix) Greenlink West Prior approval received in docket 21-06001	No (Already designated as a Critical Facility) Requesting Construction Work in Progress incentive	\$25,499.5
Comstock Meadows Substation	Yes	1(g)(xxix) Common Ties Prior approval received in docket 20-07023	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive	\$19,176.8
Mira Loma Substation	Yes	1(g)(xxix) Common Ties Prior approval received in docket 20-07023	Yes (Requesting Critical Facility designation) Requesting Construction Work in Progress incentive	\$16,964.7

**MINUTES OF THE
SENATE COMMITTEE ON GROWTH AND INFRASTRUCTURE**

**Eighty-first Session
May 17, 2021**

The Senate Committee on Growth and Infrastructure was called to order by Chair Dallas Harris at 4:07 p.m. on Monday, May 17, 2021, Online and in Room 2144 of the Legislative Building, Carson City, Nevada. Exhibit A is the Agenda. All exhibits are available and on file in the Research Library of the Legislative Counsel Bureau.

COMMITTEE MEMBERS PRESENT:

Senator Dallas Harris, Chair
Senator Chris Brooks, Vice Chair
Senator Pat Spearman
Senator Scott Hammond
Senator Keith F. Pickard

STAFF MEMBERS PRESENT:

Susan Scholley, Policy Analyst
Eileen O'Grady, Counsel
Debbie Shope, Committee Secretary

OTHERS PRESENT:

Doug Cannon, President and CEO, NV Energy
David Bobzien, Director, Governor's Office of Energy
Michael Brown, Executive Director, Division of Economic Development,
Governor's Office of Economic Development
Bob Potts, Deputy Director, Division of Economic Development, Governor's
Office of Economic Development
Bob Johnston, Nevada Senate Democratic Caucus
Danny Thompson, International Brotherhood of Electrical Workers Local
Union 396
Ernie Adler, International Brotherhood of Electrical Workers Local 1245
Michael Hillerby, Google
Ed Garcia, Con Edison Clean Energy Businesses, Inc.
Baird Fogel, Haas Automation
Susan Fisher, Able Grid Energy Solutions; Ovation

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Christi Cabrera, Nevada Conservation League
Annette Magnus, Battle Born Progress
Nate Blouin, Interwest Energy Alliance
Carolyn Turner, Nevada Rural Electric Association
Alan Molasky, Ovation Development Corporation
Ann Silver, Reno Sparks Chamber of Commerce
Dylan Sullivan, Natural Resources Defense Council
Laura Granier, Nevada Resort Association
Patrick Donnelly, Center for Biological Diversity
Kevin Emmerich, Basin and Range Watch
Peter Krueger, Petroleum Marketers and Convenience Store Association
Ian Bigley, Progressive Leadership Alliance of Nevada
Andrew MacKay, Nevada Franchised Auto Dealers Association
Cesar Diaz, Charge Point
Jaina Moan, The Nature Conservancy
Scott Leedom, Southwest Gas Corporation
John Hadder, Director, Great Basin Resource Watch
Chelsey Hand, Great Basin Resource Watch

CHAIR HARRIS:

We will open the hearing on Senate Bill (S.B.) 448.

SENATE BILL 448: Revises provisions governing public utilities. (BDR 58-46)

SENATOR CHRIS BROOKS (Senatorial District No. 3):

I am presenting S.B. 448. This bill is an attempt for Nevada to capture its place in the new energy economy. Its provisions help Nevada take full advantage of our resources and potential to attract billions of private capital dollars to our State. It takes full advantage of federal infrastructure money that is coming to our State. It creates tens of thousands of high-paying local jobs while reducing our greenhouse gas emissions (GHG) and helping us to meet our climate goals.

Slide 2 of my presentation (Exhibit B) shows Nevada has a unique opportunity to expand its clean energy economy to: provide economic diversity; create new high-paying jobs; increase electric-grid resiliency; and provide new tax revenues for this State, all while decreasing carbon emissions and air pollution, and increasing economic and environmental justice for Nevadans.

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Slide 3, Exhibit B, shows Nevada is positioned to be a leader in clean energy. We have almost no fossil fuels in the State and import almost all of our fossil energy at more than \$8 billion a year. What could be done with that money if it stayed here in our economy? We have abundant renewable resources, the best solar and geothermal resources in the world, and wind and biomass opportunities. We are located in the center of the Western Interconnection and the western energy imbalance market.

Nevada has the most robust transmission infrastructure in the U.S. set outside of Las Vegas in the Mead, Marketplace and Eldorado substations. We are adjacent to the largest energy economy and the largest economy in North America. We have the only operating lithium mine and the best lithium resources in the world.

Nevada has a well-established, high-tech mining industry. We have established labor unions and apprenticeship programs, which have been built around the new energy economy. We are leaders in the construction industry.

Nevada has universities and research facilities set up around clean energy and the new energy economy. We have relatively new roads, rail and airports. We have relatively new transmission and distribution systems in southern Nevada and are an international travel hub. We have easy business startups, no corporate income tax and many programs to support energy projects. For these reasons, we should be the leader in clean energy and the new energy economy in the U.S.

This bill has eight key components to support that vision as seen on slide 4 of Exhibit B. The first is transmission infrastructure; second is transportation electrification; third is energy efficiency; fourth is rooftop solar; fifth is resource planning to reduce carbon emissions; sixth is energy storage; seventh is the Economic Development Electric Rate Rider Program; and eighth is a few regulatory cleanup provisions.

With us today is Doug Cannon, Chief Executive Officer of NV Energy, who goes into greater detail on the transmission infrastructure. The transmission infrastructure opportunities we have in the State are important to the economic future of Nevada.

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On Slide 5, Exhibit B, the high-voltage, bulk transmission system which serves the customer electricity loads of the Western Interconnection is the shaded portion of the western U.S. An obvious lack of transmission to connect the lines is basically in the center and western side of Nevada.

In building that transmission system out, we would support the regional transmission markets. Connecting the dots on Slide 6, Exhibit B, with high-voltage transmission lines in the West, we move wind power that happens at night in the Mountain West into and through Nevada. We will take advantage of zero-carbon electricity generated in the Pacific Northwest and the hydro systems of Bonneville Power Administration. It takes advantage of surplus solar power in the Southwest and California and moves it into and through Nevada.

Every time a megawatt hour moves through Nevada, whether generated here and exported or moving through our State from one utility to the next, Nevada receives economic benefit. Because of the infrastructure in southern Nevada and the geographic location to existing transmission lines and future projects already planned, if we connect the dots with a few transition lines, we will realize the economic opportunity of being the hub of the Western Interconnection.

The benefits are billions of dollars of economic activity and private investment in renewable energy projects in our State. On Slide 6 of Exhibit B, the proposed Greenlink transmission lines, for instance, will access renewable energy development zones, which are almost 100 percent federal lands. If we access federal lands, we could turn them into areas that can be developed into clean energy and load projects, whether data centers, manufacturing, mining or any other type of heavy industrial loads. We can open up the opportunities for development in our State.

We could then turn those federal lands into local taxable property of which the benefit of that tax goes to the local and state governments where the projects exist as the economic activities we create with the jobs. We will have \$690 million in direct economic activity from the construction of the lines.

It gives us the benefit of taking advantage of a regional transmission organization (RTO). One RTO we are aware of is the California Independent System Operator (CAISO). Nevada is home to the only non-CAISO utility in the U.S. We have a head start on the world of regional markets, with much

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conversation across the western U.S. about what a regional market should look like.

Senator Chris Hansen in Colorado is moving his senate bill through the Colorado House that discusses regionalization in the same terms that we discuss in this bill. This is a Western conversation taking place between Western governors. It is taking place between the governors and the big and small utilities in the West at the legislative level.

The benefits of an RTO are it spreads out both generation and load across a large regional area, resiliency and, as I see it, transmission as a national security issue. If we build out more transmission and storage and integrate with other systems, it makes Nevada's place in the national security apparatus more important. It creates resiliency in a way so what happened in Texas will not happen in Nevada.

At times, we progress to a situation where we move close to maxing out our system and not require the availability of electricity during our peak times. We saw 20 years ago what can happen through deregulation, lack of resource and lack of transmission assets during the Western energy crisis. We saw what happened in California this last summer. It was not a lack of resource, it was lack of access to the resource when it was needed the most. Transmission helps the problem go away.

One of the most important points being in a regional market is it provides access to lower-cost energy. Looking at the loads in Nevada centered in two small pockets, to provide the generation for the loads, it is far more affordable if you give the entire Western U.S. the ability to access the markets with zero-carbon generation.

Regional markets exist in everything east of the Rocky Mountains. Building out regional markets across the West and building transmission that lays the groundwork for the network increases resiliency and national security. By doing this, we lower the cost of energy for Nevada's ratepayers.

While we need to require investments in infrastructure, it opens up opportunities for those who are serviced by NV Energy and those who procure their own energy. It has transmission options and therefore access to clean energy at a lower price to benefit ratepayers large and small.

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On Slide 8, Exhibit B, transportation electrification has the opportunity to not only clean up air pollution, which disproportionately affects the communities in our State that are historically underserved, but reduce our largest sector of GHG emissions. We have done a good job with renewable energy and lowering our carbon emissions through the electricity sector. The transportation sector is now the largest GHG emitter and the emitter of pollution in our State. Pollution causes health problems for many of our Nevadans and causes billions of dollars of health damages as a result.

Transportation electrification provides the opportunity to give choices to consumers. At this time, we are at a tipping point where an electric vehicle (EV) is the same price as its gasoline engine counterpart, and EVs are getting cheaper every day. The cost of owning and operating an EV is already a fraction of what it is for a gasoline-powered vehicle.

Personal and public transportation are good candidates to be electrified. It is hard to imagine Nevada is one of the most urban states in the entire U.S. If you think about where 80 percent of the population of the State lives, those residents are clustered closely in two valleys. It creates a lot of air pollution, but it makes even the lowest cost and shortest range EVs a good choice for the majority of Nevadans. Longer-range and cheaper-priced EVs are coming every day.

The health, GHG emissions and economic benefits for Nevadans only exist if you can charge your vehicle. I have an EV charger in my garage, a battery system and a solar system. Most Nevadans are not able to access that type of system. If we want to create the benefits of electrification available to Nevadans, we need to provide charging infrastructure.

Another benefit of providing charging infrastructure is when you are charging the EV, you create a load that then spreads out the cost of not just EV charging but all electricity in the entire State across a broader base. With more charging units, you cause lower prices for charging.

Data and studies show the electrification of transportation provides downward rate pressure for ratepayers, including those who do not own EVs.

According to a study recently commissioned by M.J. Bradley & Associates and performed in 2021, on Slide 10, Exhibit B, the cumulative net-benefits for the

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electrification of the transportation sector could be \$21 billion by 2050. Most of it comes in driver savings. The cost of kilowatt hours (kWh) has gone down in Nevada, all while the makeup of the kWh has become cleaner every year. The electricity you purchase fuels your EV. Imagine in Nevada we are making our own electricity with renewable resources, putting it in our vehicles and driving our vehicles. It closes the loop, keeps billions of dollars in our economy and makes it affordable for the individual who is driving the EV.

Every major manufacturer and new startups are making new EVs. If we do not step out in front of that, we will miss out on the benefits.

We decided to approach this bill in two different ways. One was immediate. Create immediate investments, put people to work, receive tax revenues generated in Nevada and begin laying groundwork so we can move in front of EVs coming to our State. The second part puts in place a long-term planning process by which the community can come together and begin discussing what the electrification of transportation looks like in a more holistic way.

The first piece has five types of programs, Slide 11, Exhibit B, and we are directing the investment of \$100 million in transportation electrification during the next two years.

First is interstate corridor charging depots to facilitate long-distance travel within our State. The investment gives travelers into our State the comfort that they can come from out of state and visit Nevada. They can enjoy the great features we offer and leave a portion of their dollars behind. Charging infrastructure in the interstate corridors helps them.

Second is urban charging depots. We need the ability for people to charge their vehicles in the core of our cities.

Third is public agency charging for fleets and buses; one of the prime candidates for electrification is school buses.

Fourth is school buses. School buses are parked for a certain amount of hours every day and maintain a certain set route they drive. Our schools are in a situation now where funding is prioritized. If we can put in charging infrastructure to help school districts, we can see the electrification of our fleet

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of school buses. School routes make a direct impact on the children riding the school buses and the neighborhoods they serve.

Fifth is outdoor recreation and tourism. When you think about people coming to Nevada and especially Las Vegas, many of our guests are coming from California. Having the interstate corridor and resort corridor charging depots helps people visiting the city and outdoor recreation areas, making their visits more affordable and convenient. It not only helps the customers, it helps those employees who work in the resort corridor. That is our largest employer by far.

For those people who work in the resort corridors, if they could charge their EV at work, then they do not necessarily need a charging station at or near their home. As someone who has tried to live this and experiment with it to see where the shortfalls are in our State, I see it is the No. 1 way we can help people ensure access to EVs.

Within the \$100 million investment, 40 percent must be invested in historically underserved communities to the benefit of those communities. It achieves two points. It addresses the issues of the disproportional negative impacts the historically underserved communities experienced from climate change and the more immediate health problems associated with the pollution produced in our valleys.

The second thing is expanded economic opportunities, whether it is through low-cost charging or having access to charging at their homes or places of work for those historically underserved communities. Often, we do not see those communities as the beneficiaries of the new energy economy. We are creating opportunities for them by directing 40 percent of funding to the benefit of those communities.

It directs 20 percent of the investment to outdoor recreation and tourism programs which is the most important way to help our economy recover, and everyone can benefit.

The second part of this is the long, comprehensive and holistic approach to planning around electrification of transportation.

One of the other components of this bill is energy efficiency, Slide 12, Exhibit B. The law requires that 5 percent of energy efficiency plan expenditures be

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directed to programs for low-income households. The bill doubles the amount to the benefit of low-income households but also those historically underserved communities identified and defined in this bill. Community Housing Improvements Systems; Nevada Chapter, American Planning Association; and Natural Resources Defense Council were helpful over the last year in coming up with definitions and applications for those historically underserved communities.

Energy efficiency programs of variable incentive levels offer higher incentive levels for low-income households to help Nevadans economically through the health and climate benefits of energy efficiency. These communities are sometimes left behind in projects of that type.

On Slide 13, Exhibit B, the bill clarifies and expands rooftop solar for multiunit buildings. The intent of this is to address multifamily housing, specifically low-income and senior housing. My grandmother, for example, lives in senior housing in North Las Vegas. We have one owner of a large senior housing or low-income housing development, and utilities are inclusive—the energy, the water and everything is with the rent.

In that particular application, we want to have solar on the roofs or on parking structures. In my grandmother's building, people do not own their own places and do not have their own power bills. We want them to receive the benefit of on-site renewable energy generation and the economic benefits that come with it. It is directly passed on to the tenants.

One of the other components, Slide 14, Exhibit B, of the bill is resource planning to reduce carbon emissions. In this Legislature, we are familiar with the renewable portfolio standard (RPS), a mandate that we create a certain amount of our electricity from a certain type of clean energy. We are moving beyond that as a State toward a zero-carbon future. How can we move to a zero-carbon future? A zero-carbon future takes a long-term plan, and we need to begin making that plan now.

The graph on Slide 14, Exhibit B, shows CO₂ emissions reduction. Emissions—the biggest contributor to carbon in the electricity sector— have drastically been reduced while our population has grown. That is a result of the RPS policies put into place and, more importantly, the falling costs of renewable energy.

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Renewable energy is now the cheapest energy. Now we have to figure out how we move to where we want to go. We want to obtain a zero-carbon electricity world, and it takes planning other than only the RPS. The RPS was a great tool to get us where we are now, and the next level is to begin putting in plans on how we move to zero-carbon. It sometimes means transmission, sometimes it is storage, sometimes it means entering into a regional market, and sometimes it means electrification of the transportation sector. These points help us drive down the cost of electricity and access our zero-carbon future.

Slide 15, Exhibit B, is my favorite slide in the entire deck. Notice the increased use of renewable energy with the reduction in carbon and overlaid with the average rates. As the reduction in carbon and the generation of renewable energy grows, the cost of electricity has fallen. For someone who has been coming to this building for 20 years preaching this and had 3 sessions under my belt to push this policy, it is good to say I told you so. Many people continue to say adopting many of the policies raises prices. This could not be further from the truth. Slide 15 is my favorite.

It is how it comes together when we look at the plan based on the laws that exist and the requirements we maintain for our utilities in this State. When we look at the carbon reduction model on Slide 16, Exhibit B, it is not enough to move us to the goals that we set for ourselves as a State, as a Nation and as a planet. It could be far better. That is why we need to go from our current way of looking at resource planning and RPS and take a more holistic approach at carbon reduction planning for the electricity sector.

One of the other opportunities in this State I mentioned earlier is lithium, Slide 17, Exhibit B, but storage comes in many different ways. It comes in lithium, mechanical, pumped hydro and hydrogen. We need to ensure we are encouraging people in Nevada. We could again be the leader in energy storage in this State.

One way to incentivize is change our renewable energy tax abatement program. We need to clarify the large storage projects that are coupled with or facilitate renewable energy generation are a part of the renewable energy tax abatement. That is one of the points this bill does.

Next, Slide 18, Exhibit B, discusses the economic development piece. We can reach our climate reduction goals while developing the economy. One way is

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reopening the Economic Development Electric Rate Rider Program. This is for new load in southern Nevada. Many people may be familiar with how it was used in the north, and now we want it to be available in the south. The statute ran out. Many kinds of electricity-intensive companies want to come to southern Nevada. It makes it a more competitive environment for the companies to locate themselves to Nevada, primarily southern Nevada. This exact model was used in northern Nevada with great success.

The next item in this bill is regulatory cleanups. One is the disposition of generation assets on Slide 19, Exhibit B. This goes back to when Sierra Pacific Power Company and Nevada Power Company came together and began doing business as NV Energy. The merger language needs cleaning up to clarify issues.

Lastly, if we propose the utility spends money to build infrastructure, we need to ensure that the utility builds out that infrastructure with the highest level of scrutiny from the regulator. This Public Utilities Commission of Nevada burden of proof language in section 35 of S.B. 448 ensures the burden is on the utility to show the investment it makes is the most prudent for the benefit of the ratepayer.

DOUG CANNON (President and CEO, NV Energy):

Senate Bill 448 continues the legacy as Senator Brooks discussed. In 2019, the legacy of the new energy economy began to take root. We began to develop Nevada's renewable energy potential focused on reducing carbon, creating jobs and driving economic diversification in our State.

The timing could not be more suitable with the effects of Covid-19 still challenging our communities and the opportunities that lie ahead to create jobs and further diversify our economy. I appreciate Governor Steve Sisolak, Director David Bobzien and the stakeholders who provided input on this bill and their leadership on carbon reduction, renewable energy development and job creation.

I will begin with the transmission infrastructure. Transmission infrastructure in the electric industry is akin to the interstate highway system or the interstate railway system. We can produce energy in many places in Nevada. But it does no good if we cannot move that energy from where it is produced to where it needs to be utilized. Transmission becomes the backbone necessary to fully utilize that energy.

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Earlier this year, the Public Utilities Commission of Nevada (PUCN) approved the first segment of what we call the Greenlink Nevada transmission project. That is the map you saw on the presentation. It consists of five different segments of transmission lines. The PUCN approved construction, design and full development of what we refer to as Greenlink West on Slide 6, Exhibit B. That transmission line goes from Las Vegas to Yerington, up the west side of Nevada.

In addition, we have two transmission lines that run from Yerington—one runs to the proposed Innovation Park or the Tahoe-Reno Industrial Center and another runs over into Reno—to move that energy to where the loads are.

In addition to Greenlink Nevada, we have what is called Greenlink North, a power line that runs from Ely across the center of the State over to Yerington. That particular line was not approved for construction. It was approved for preliminary design and planning. It takes this whole suite of power lines to create the triangle you see on Slide 6 to create the transmission network needed to unlock the opportunities that we see in our State.

What will the completion of Greenlink accomplish for Nevada? It is a vital component to position Nevada to achieve our long-term sustainability and carbon reduction goals. The construction of the power lines unlocks the potential to develop more than 4,000 megawatts (MW) of new renewable energy across the State. In our rural counties, this creates important jobs and represents significant economic development.

It creates a path forward for us to economically achieve the State's net-zero carbon goals by 2050. Greenlink Nevada adds much-needed transmission import capacity into northern Nevada and is necessary to accommodate more than 1,400 MW of load that has signed up to come to Nevada. That 1,400 MW represents significant business development and employment opportunities, and the contracts have been signed. It is not theoretical customers coming to our State. The project allows employers to achieve these objectives in a carbon-free way utilizing Nevada's renewable resources.

The project facilitates Nevada's long-held vision to leverage the State's renewable energy resources to not only meet the needs of Nevadans but also create opportunities for revenue and jobs by exporting this energy to surrounding states through Greenlink's increased transfer capability. In addition,

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as mentioned by Senator Brooks, it increases our ability to participate in the energy imbalance market, bringing further benefits to Nevadans. Any benefits received by NV Energy participating in the energy imbalance market go 100 percent to our customers. NV Energy does not keep any of the benefits as profit.

Every dollar we can save by participating in the energy imbalance market is another dollar our customers shave off their energy rates. As pointed out by Senator Brooks, the Greenlink Nevada transmission project is an approximate \$2.5 billion investment in Nevada. It generates over \$690 million in direct economic activity and creates nearly 4,000 good-paying, skilled-labor jobs to further drive diversification of Nevada's economy and drive recovery from the Covid-19 pandemic.

Development, permitting and construction of high-voltage transmission is a lengthy endeavor. It begins immediately for us to meet the economic reliability and clean energy objectives of the State while ensuring that facilities produce minimal impact on Nevada's land resources and habitat.

If this bill is passed, NV Energy will file an amendment with the PUCN by September 1 to construct the facilities previously approved for design, permitting and land acquisition that will primarily be Greenlink North.

What is the effect on customer rates from building a project like Greenlink? Since 2013, NV Energy has undertaken a significant amount of capital investment in Nevada, deploying more than \$4.3 billion. What was the effect of that \$4.3 billion dollars of investment on our customer's rates? The rates are lower today than in 2009. In October 2020, our customers received a \$120 million rate credit. On January 1, our customers saw a \$93 million rate reduction. Our customers have not seen a rate increase since before 2013.

The capital we are discussing is a smaller number than that. We expect this to unlock significant renewable energy opportunities. It lowers customers' costs as Senator Brooks indicated. This unlocks the opportunity to utilize market resources throughout the region which helps reduce our customers' rates.

I want to note that the PUCN reviews the costs for the projects that NV Energy undertakes and only allows NV Energy to recover the reasonable costs of the projects. Thus customers are assured that NV Energy is being closely watched

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and regulated as it develops the projects. Greenlink Nevada will bring to Nevada lower-cost renewable energy resources, open up new energy markets to access lower-cost resources and allow NV Energy to manage its energy portfolio in a more cost-effective and reliable way. The benefits reduce overall costs for our energy customers throughout the State.

Another important section addresses the electrification of the transportation sector. To meet the climate objectives of Nevada and specifically reduce carbon in the transportation sector, the role of the electric utility expands to accelerate transportation electrification. Today, tailpipe emissions are the largest source of carbon in Nevada. NV Energy has long supported cleaner transportation opportunities.

The transportation electrification economic recovery package included in this legislation authorizes up to \$100 million of clean energy infrastructure investment in EV charging stations and other infrastructure over the next three years. It directs NV Energy to file a plan with the PUCN and, upon review and approval by the PUCN, cause the immediate investments to accelerate transportation electrification, put people to work and perform this in historically underrepresented communities.

Work would begin immediately on the programs outlined in the legislation so we can begin to see the important economic recovery.

This bill transforms Nevada's clean energy economy and its clean energy landscape and positions the State as an energy leader in the western U.S. for decades to come. The bill accomplishes the objectives while ensuring low-income and underrepresented Nevadans enjoy the benefits of this energy transformation. In addition, the bill creates thousands of good-paying, skilled-labor jobs that diversify Nevada's economy and job market.

DAVID BOBZIEN (Director, Governor's Office of Energy):

I want to highlight particular areas of support for the administration and alignment with the State Climate Strategy. In December 2019, governors from the western area convened to discuss the future of the Western Interconnection. Their focus was on price stability and reliability for customers, along with economic opportunity and increased adoption of renewable energy even as they faced the pressures and impacts of the changing climate in the West.

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That convening of governors from states as diverse as Idaho, Colorado, Oregon, Arizona, Wyoming and others has evolved into the Western Interconnect Regional Electricity Dialogue. It consisted of governors, energy advisors and utility representatives developing recommendations on resource adequacy, transmission planning, greenhouse gas accounting and state clean energy standards seeking to harmonize for purposes of market engagement.

Nevada is participating in a multistate study funded by the U.S. Department of Energy on the cost and benefits of joining various configurations of an RTO. The State's current engagements and regional dialogues provide plenty of inputs for further exploration by a Regional Transmission Coordination Task Force, created by section 31 of S.B. 448. The Governor's Office of Energy (GOE) looks forward to supporting the Task Force and has a history of providing such support to other similar efforts.

I want to discuss the expansion of the Renewable Energy Tax Abatement (RETA) program to include storage. This is a logical next step in Nevada's long history of policy supporting growing the clean energy economy. For reference, GOE approved its first solar plus storage RETA project in January. With the identification of storage as a critical technology for Nevada to meet its zero-carbon emission goals in the power sector, GOE expects to see additional applications including storage. This expansion of RETA supports developers in considering storage in their projects and benefits that Senator Brooks laid out.

I want to turn to transportation electrification. Senator Brooks is the most powerful advocate for the need and the opportunity around transportation electrification, and we look forward to participating in the development of the plans. The GOE has had a successful partnership with NV Energy for the development of EV charging infrastructure since 2015 and will continue this work through the legislation.

I want to highlight section 49, subsection 3, paragraph (c) which is the Public Agency Electric Vehicle Charging Program. It requires the utility to collaborate with the Department of Administration, State Department of Conservation and Natural Resources, Nevada Department of Transportation and GOE in developing the program. I am pleased to report that the agencies are already in discussions with NV Energy with their plans for this program and others. This collaboration is helpful in the success of the plan and the investments, particularly when it

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comes to maximizing any additional infrastructure support that may come from Washington, D.C., as part of the American Jobs Plan.

As noted, as the EV market grows, we want to ensure Nevadans have access to clean transportation by supporting the development of infrastructure for frontline communities. By ensuring that not less than 40 percent of the bill's transportation electrification plan be dedicated to investments made for the benefits of the historically underserved communities, Senate Bill 448 expands opportunities to access the EV market for Nevadans.

MICHAEL BROWN (Executive Director, Division of Economic Development, Governor's Office of Economic Development):

In the Governor's State of the State Address, he said he would work with Senator Brooks to bring landmark legislation to urge the Legislature to pass a bold energy bill to solidify our competitive position in the transmission, storage and distribution of energy. This legislation meets that task, and we urge its adoption.

The Governor has stressed that this legislation helps create jobs. Twenty years ago this month, in this hearing room, the lights were going out across Nevada. We were suffering from California's 2000-2001 energy crisis triggered by the Enron speculation, and Nevada Legislators Senator Randolph J. Townsend and Majority Leader Barbara E. Buckley came together in a bipartisan way to fashion energy legislation which stabilized our market and set the path for a renewable new economy. We cannot have a hearing like this without mentioning former director of the Department of Business and Industry Rose McKinney-James and the key role she played in putting solar on the agenda at that time. I was there, and I remember at the time we thought it was wind, but Ms. McKinney-James was correct, it was solar.

Those Legislators came together in that crisis and stabilized us. In *The Wall Street Journal*, an interesting article states, "For the first time, renewable energy and renewable energy storage is becoming more competitive than natural gas." This entire storage industry, of which lithium is the base, is coming together in Nevada.

This landmark legislation that Senator Brooks has brought, S.B. 448, is one of the bill numbers that lives on beyond Legislative Sessions. Climate change is real. Corporate America has recognized it. Climate change is on the agenda of

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companies in Nevada, and climate change is on the agenda of companies considering coming to Nevada.

To meet the challenge of climate change, you need a matrix. You know what is going into your factory, into your mines, into your casinos. You cannot manage what you cannot measure. Wall Street has stepped forward and has forced, compelled, encouraged and mandated for companies to begin coming forward with environmental social governance (ESG) goals. This is how you measure what companies are doing in this area. Most progressive and responsible companies are seeking ways to improve their ESG scores. By creating this kind of green energy in Nevada and maximizing our opportunities in this area, we have the opportunity to attract different kinds of manufacturers to this State and produce more long-term jobs than what this energy bill produces.

American manufacturing is in a bit of reshuffle. In the postpandemic period, it is looking at reshuffling operations and reshoring operations from overseas. It is looking at reshuffling operations in the U.S. to sort out the supply chain issues and e-commerce issues that developed in the pandemic. Nevada is an attractive prospect for manufacturers because of our Pacific Standard Time zone location and because of our ready and hard-working labor force who are looking for jobs of that type.

We have an advantage in energy. For the first time, we sat with a manufacturer from the Midwest, and the first inquiry was regarding renewable energy. The company wanted to know how we were producing it, how it was transmitted and what the prices were. That was a game changer. We have not heard this before. This is an opportunity to help build and diversify the Nevada economy. The SRI International plan, which is an independent assessment done for the Governor's Office of Economic Development (GOED) on resiliency and recovery in Nevada, recommended we take every step we could to solidify our position as a leader in renewable energy and sustainable energy storage area.

BOB POTTS (Deputy Director, Division of Economic Development, Governor's Office of Economic Development):

I want to emphasize numbers brought up earlier in this meeting were provided by my fellow economists and our advisors at Applied Analysis.

During this 12-year construction period, the project is expected to generate \$690 million in economic activity and support over 3,700 person-year jobs. The

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jobs pay over \$406 million in wages and salaries, and the money returns to the economy.

If you look at only the construction phase, that pencils out to over \$1.44 return on investment (ROI), so every dollar invested in this returns \$1.44 on the initial investment that Nevada gains in this project.

It does not account for the items Mr. Cannon was referring to, for instance, export base, selling energy, energy imbalance and managing the items. It does not include indirect and induced effects that are expected to add an additional \$211 million in economic activity through the project's development cycle. Not even discussing the export base or energy imbalance, it brings the ROI up to \$1.88 for every dollar invested.

With Nevada's economy, particularly how hard southern Nevada was hit during the Covid-19 pandemic and the economic downturn as a result of the health crisis, it has become apparent how we need to retool and diversify our economy to move us out of this cycle. We have a strong pipeline and much interest in this State, particularly in southern Nevada.

Looking back at our last two GOED abatement approval meetings, 80 percent to 90 percent of the companies that approached us were manufacturers. Manufacturers have high-energy use operations; these people want to come here and can give us the competitive edge against competing states and other regions in the Country. This adds value to what we can accomplish. As Director Brown discussed, one of the first questions asked from the companies concerned Nevada's renewable energy portfolio. It matters to companies.

We have a huge interest now in the manufacturing sector in our State. Looking at our business pipeline activity and at active projects in the State, we have 19 active projects; 14 of the projects, or 75 percent, are manufacturers, 5 of which are EV-related. It is tight linkage to everything we are discussing. We have 16 projects of that 19, or 86 percent, in Clark County. In total, the projects are estimated to bring on 12,500 jobs at or above the State average wage and \$9.7 billion in capital investment. Will all of the projects happen? No, but everything we can achieve to make it happen makes a difference in addressing what we want in diversifying our economy.

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We track the number of projects on hold. We have many companies working through their projects and where they want to go, looking at different issues and at their cost portfolios. We have 14 projects on hold; 9 of the projects, or 64 percent, are manufacturers. Ten, or 71 percent, of the projects are in Clark County. In total, the projects are estimated to bring on 8,400 jobs with an average wage of over \$25 per hour and bring in over \$1.9 billion in capital investment. I realize the capital expenditures are low because these are the on-hold projects, figuring out what they need for real estate and to put it together.

I want to emphasize what Director Brown discussed. In particular, the manufacturers of the 19 active projects asked us what Nevada's renewable energy portfolio looks like and for us to message what we are achieving would be huge strides.

SENATOR HAMMOND:

This is a bold bill, and we are 14 days away from the end of the Session. I wanted to dig deep into the issues. Because it is bold, many people have contacted me with questions.

The bill states the request goes to PUCN, and as long as the request hits the marks, the PUCN "has to" approve it. Can you go through this part so people understand better why it needs to be done? Typically, we do not tie the hands of the PUCN. We allow the Commissioners the autonomy to deal with the subject matter they are good at. I am sure it will dovetail into the ratepayers and with the savings.

SENATOR BROOKS:

We worked closely with the Bureau of Consumer Protection; the PUCN; the electric utility; NV Energy; environmental, social and environmental justice groups; conservation groups; and people in the energy industry over the last year. We worked closely with entities, including the PUCN, to ensure we were addressing the right balance of policy initiative and ratepayer protection.

You are correct, this bill is more prescriptive than other pieces of legislation. Normally, this is a plan proposed and debated in front of the PUCN. This plan lays out a road map for the future of Nevada. It states if we build the transmission lines and implement this electrical infrastructure for charging, wonderful events will happen. Mr. Potts and Mr. Brown alluded to data.

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Mr. Cannon and others say if we build the projects, economic opportunities will happen for our State.

The PUCN is the regulator, and this is not its job; it is not in the economic development business. It is keeping rates low, keeping the lights on and ensuring when the utility makes an investment, it does it in the most prudent fashion possible. It does not have the ability to contemplate the economic benefit.

It is a policy decision to carry out these ideas, lay the groundwork for Nevada well beyond just keeping the lights on and providing reliable electricity. At the same time, it gives the Commission the tools necessary to ensure the utility performs the details we direct it to do in the most cost-effective manner possible.

SENATOR HAMMOND:

This comes back to the bureaucratic model. We give an agency a parameter to work in. We say, this is your box; the agency becomes good at it and builds in efficiencies. You are saying this is one of the instances where we as the Legislature are directing this policy change, giving direction because we are asking the PUCN to work outside its box and instituting the new changes. Are you saying by giving the Commission the direction and making this policy decision, S.B. 448 eventually lowers rates because of Greenlink Nevada, the jobs, the flow of energy through our State and the new structure of our energy economy?

SENATOR BROOKS:

Yes, you described it perfectly. That is the intent of the bill, but it is not necessarily the responsibility of the PUCN to even contemplate what private investment in the State would look like if we built a transmission line. Its responsibility is to decide to keep the lights on today, do we need to build it tomorrow, and if so, how can it be done at the lowest cost possible. It is PUCN's job. This goes well beyond that because it lays out groundwork for economic development for our State.

SENATOR HAMMOND:

That is good for the record. You discussed storage. This is one part of the bill not in my wheelhouse. I do not know much about this. I keep hearing and seeing stories about safety issues when we discuss battery storage. I want to

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gain an idea of where we are with battery storage and the energy storage in batteries. Can you highlight the safety concerns? What are we contemplating to mitigate the possible issues with the storage?

SENATOR BROOKS:

Sections 3 through 8 of the bill deal with the aspects of storage. Statute has a definition for energy storage. It is the storage of energy not necessarily of electricity. It is agnostic to the technology without knowing what the future holds. I look back 10 years as someone who has been in this industry for 21 years. I could not have imagined how far we would come technologically in the last ten years and zero knowledge to predict what can be done in the next ten years with technology.

We stay agnostic in this bill and in statute as to the type of energy storage available. At this time, the most common is any type of lithium battery. Lithium batteries store energy in a chemical-electrical way. It is what is in your computer, in your cellular phone in your pocket and in EVs. It is prevalent in large-scale utility energy storage.

Whenever you are storing a large amount of energy, safety must be paramount. We have heard through a few different bills this Legislative Session that you want qualified people and qualified companies doing that type of work. You want to ensure training is available to them. I am comfortable with proper training, properly qualified individuals and qualified companies that can safely perform this work. This bill does not speak to the technology; it speaks to the storage as it exists in statute.

SENATOR HAMMOND:

My big concern is safety. You are attempting to store more energy in batteries. I want to learn more about that, but I can find out how it works later.

SENATOR PICKARD:

This is a lot to digest. You mentioned national security and how our current transmission system is risky. I remember sitting through the briefings with Vice Admiral Lee Gunn from the American Security Project on this with you, and we are aware of this. I assume the transmission lines we are looking at building are merely extensions of the existing system. How is this being built so we are addressing the security issues?

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SENATOR BROOKS:

Slide 6, Exhibit B, shows one transmission line that connects northern Nevada to southern Nevada, one line. In northern Nevada, it is the Robinson Summit Substation outside of Ely where various connectivity exists at lower voltages to other parts of the State. This plan creates the redundancy of having that triangle. If you lose one line, two other segments can feed that same load. If you lose two lines, then that load is isolated, but this increases the redundancy. The redundancy in the lines is what creates the resiliency in the system.

If you look at the triangle on Slide 6, Exhibit B, do you know what is right in the middle of that triangle? One of the biggest national security resources in the entire world. Increasing redundancy in that area would be great.

SENATOR PICKARD:

Redundancy is one way to secure it. One of the points Vice Admiral Gunn discussed is since most of our transmission is open, exposed and visible from anywhere, it in itself presents a problem. Redundancy is the answer, and no silver bullet exists.

Section 10 deletes most of the provisions of the EV Infrastructure Demonstration Program. I am wondering why. Is it because it is obsolete? If so, why did we not delete the program. Instead, the language simply says the Commission shall adopt the regulations, and then it deletes the guidance. Can you explain it?

BOB JOHNSTON (Nevada Senate Democratic Caucus):

In the 2017 Session, as part of S.B. No. 145 of the 79th Session, the Legislature authorized NV Energy to create a demonstration program known as the Electric Vehicle Infrastructure Demonstration Program. That program continues and has a case now before the PUCN. We have a limited amount of funding. It is subject to the overall \$295,270,000 cap under renewable programs in *Nevada Revised Statutes* (NRS) 701B. Sections 9 and 10 have to do with the phaseout of the EV Infrastructure Demonstration Program since transportation electrification planning becomes part of the resource planning at the utility.

The effective dates for sections 9 and 10 are timed so that program will phase out as the other one ramps up.

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SENATOR PICKARD:

That was my assumption because we are well past the point of that program. I was here when it was established. The disconnect was maintaining the requirement for the Commission to adopt regulations, but then only eliminating the guidance did not make sense. If it is kept merely to manage the phaseout, then it makes sense. Is that why we are keeping it in place?

MR. JOHNSTON:

That is correct. First it removes the legal obligation for NV Energy to include the demonstration program in the company's annual plan filing. Second, it eliminates the whole provision of NRS 701B after the funding under that program has expired.

SENATOR PICKARD:

In section 21, subsection 3, we are distributing the infrastructure provisions in a 70-30 split; 70 percent of the costs of high-voltage transmission infrastructure projects are in the urban areas and 30 percent are in the less-populated areas. Can you explain the 70-30 split? Basically, is this an arbitrary division? I was thinking 70 percent went to the urban areas, 30 percent went to the rural areas, or maybe I have it backwards. Anytime I see round numbers, it looks like an arbitrary designation. I am wondering what went behind the figures?

SENATOR BROOKS:

The split is 70 percent in the south and 30 percent in the north. It is a mix of urban and rural in both the southern and northern territory. Sierra Pacific Power Company and Nevada Power Company under NV Energy are viewed in statutes as separate. Certain details are allocated separately, and certain details are allocated the same way. For this, 70 percent of the load is in the south, and 30 percent of the load is in the north. It serves the entire State to the benefit of Nevadans. It is distributing energy. An allocation based on energy usage was used in the past for these investment types.

SENATOR PICKARD:

Something we hear is the rural areas do not generally receive enough money to perform their business compared to what we can perform in the south. It feeds this sense of north-south divide. Why are we choosing these numbers? It sounds like it is an electrical load issue. If 70 percent of the load is down south, then it may be a geographical coincidence. I was struggling to determine why we chose the numbers. Is it only based on electrical load?

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SENATOR BROOKS:

It is based on electrical load. Load is relatively tied to population, although both cold and hot temperatures can affect it as well. Temperature has a great deal to do with load. It is a load calculation; as a load infrastructure, the cost allocation is based on the load allocation.

SENATOR PICKARD:

As we are attempting to progress to a strictly electric-based society, the electrical load in the wintertime will go up substantially.

Section 31 is creating the Regional Transmission Coordination Task Force. A number of representatives are being appointed by different groups. I noticed in section 31, subsection 3, paragraph (a), subparagraphs (14) and (15), the Majority Leader of the Senate nominates one person on the Task Force and the Speaker of the Assembly nominates one person on the Task Force, but the minority has no one. Is there a reason why we are concentrating legislative input in the majority and not having any minority representation?

SENATOR BROOKS:

It is not intentional. We tried to limit representation on the Task Force to be as broad as possible without loading up too many from any one sector. I have already received criticism from people that it is too big of a Task Force. Some might say two Legislators is two too many. We thought limiting it to two Legislators the same way as the Legislative Commission would be the most efficient way to require the Majority Leader and the Speaker to make the appointments. By no means am I averse to choosing a Minority Party person as well. It makes the Task Force much larger.

I do not see a situation like this as partisan. You want to choose the Legislator in both the Assembly and the Senate who will perform the work, have an interest and maybe bring certain expertise.

SENATOR PICKARD:

Particularly since majorities and policies change, this is in the crucible of debate. Former U.S. Senate Majority Leader Harry Reid recently said we need a strong two-party system because it is in that crucible we vet things. This avoids that. I was wondering if we could have the core group, the minority leaders in both Houses, select two people, one from each party. I do not care how we organize it. We have seen this in this Committee a couple of times. It is not because I am

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in the minority; it is because we need the breadth of experience and approach to develop the perspective needed.

SENATOR BROOKS:

As someone who sits on this Committee with my colleagues, I heard that argument made, and I do not disagree. It is to keep it to a manageable number. I received feedback from other sectors that should be on this Task Force. The Task Force makes a recommendation to the PUCN and a recommendation to us, the Legislature, that we may or may not choose to do anything with. I was keeping it as efficient as possible.

SENATOR PICKARD:

I agree, 16 people on the Task Force makes it difficult to come to a decision.

In section 44, subsection 7 regarding low-income households, residential customers and public schools, when I read public schools I understand that as K-12 schools. Why not broaden it to all education, public, private, K-12, secondary education, instead of limiting it?

SENATOR BROOKS:

Ultimately, I want to see it everywhere. This is, for lack of a better term, a pilot program on the initial investment. The taxpayers of the State are responsible for the transportation of public schools. They are not responsible for the cost of transportation outside of the public school sector. We can save tax dollars while at the same time achieve our policy goals. In the broader plan, absolutely nothing precludes every type of use and every type of education.

SENATOR PICKARD:

I did not view this strictly as a taxpayer savings. This is more of a consumer savings pilot. I was wondering why we were limiting it to public K-12 schools instead of the privates, Nevada System of Higher Education and the other facilities that might benefit.

SENATOR BROOKS:

Nothing in this program keeps it out of the organizations. We want to ensure we direct it specifically and intentionally toward the public schools. They contain a centralized and sophisticated transportation network where we obtain the best result with little cost. None of this works to drive down rates for ratepayers or to reduce carbon unless it is well-utilized. We do not want to put it in place for

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show and it not get used. We want to put it in places where we obtain the highest use that gives us the best bang for our buck from carbon reduction, pollution and the ratepayers' standpoint.

SENATOR SPEARMAN:

This is comprehensive and good.

I am big on national security. This excerpt is from the Center for Naval Analyses. The article is "Advanced Energy and U.S. National Security."

We anticipate that the growing demand for electricity will be met increasingly with distributed advanced energy systems harnessing...wind, solar, geothermal, hydro, hydrogen, and other energy sources. Because many of these systems can be decentralized and distributed, they can meet the energy needs of populations.

The U.S. Department of Defense is looking at hydrogen as an alternative fuel cell. At Hickam Air Force Base in Hawaii, it has been experimenting with hydrogen since 2006. It now has several buses with hydrogen fuel cells that transport the pilots to and from the tarmac. The military has four ways it can use hydrogen. It is not downing electricity. I am attempting to ensure we are broad in our thinking.

The military is using hydrogen fuel cells. The army is using it in unmanned aerial vehicles, undersea vehicles, light-duty trucks and certain heavy-duty trucks. The one that intrigued me the most was the wearable power systems the military is developing for people who go to combat. Lithium batteries are heavy. It is looking at experimenting with hydrogen for that wearable system.

I am thinking of this and want to ensure we are exploring our entire resources, geothermal, hydrogen fuel cells and others. Is there any room for the exploration of other sources of energy?

SENATOR BROOKS:

We have room for it, and you have a bill which does that. We have EVs coming. With the many vehicle manufacturers, we have hundreds of EVs available. I can go to my garage now and plug one in. I cannot buy a hydrogen-powered vehicle and be refueled by a hydrogen station in Nevada. We are dealing with here and

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now, but we encourage the next, or the future, and what will happen with clean fuel.

This is about moving electricity and about storage. Hydrogen is energy storage. It takes energy to formulate the hydrogen, and hydrogen stores the energy and then turns that hydrogen into specific power, whether it is electricity or certain motion. Hydrogen fits into this in the future; hydrogen is not a thing that exists in Nevada now. We are taking full advantage of what is here now, what can put people to work and show the benefits to our communities immediately.

The subjects work together. While it may not address hydrogen, it is addressing a specific thing which is the electrification of transportation and transmission. Hydrogen does not compete with this; it complements it.

SENATOR HAMMOND:

Regarding the electric avenue, I have read articles stating we may see 8 percent EVs on the roadways by 2030, maybe more. The EVs are everywhere.

Senate Bill 448 has a significant investment of ensuring that no matter where the vehicles are coming from, they have a charging station. It is a significant investment, but I do not know if it is enough. Can you tell me the state of privatization or private investment in the charging stations? Sometimes, government kind of pushes for certain points to happen where we help to spur innovation and investment. Is that what you are attempting to do with this bill? At a point, the private businesses need to become involved as well.

SENATOR BROOKS:

I am glad you brought it up. It is about leveraging—leveraging public funds, ratepayer funds and otherwise private funds. This bill is directing the investment in charging the electrical infrastructure. I worked on development of charging infrastructure projects in my career. The charging piece of it is the absolute lowest-cost part. It is the electrical infrastructure to move it there and to provide the electricity to the charging station.

You are right, it is not enough by any means. It is a drop in the bucket of what is necessary, but it lays groundwork and begins investment that we can see private investment piggyback off. For example, Tesla wanted to build a charging station in Beatty; Valley Electric wanted to build a charging station in Beatty. They got together and split the cost on the electrical infrastructure to procure

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that. By itself, either one would have had to pay the entire cost alone. That is why it is clear in this bill, that third-party ownership and rebates can be included. We are leveraging a \$100 million investment into several hundred million dollars of investment in business models we have not even imagined.

We did not limit the ownership or placement of any of the charging stations because we want to leverage \$100 million into much more money than that.

MR. BOBZIEN:

Senator Brooks' example of the leverage funding situation in Beatty was a perfect example. This is having to run wire to ensure the power is there so the charging piece at the end can be deployed.

The Nevada Electric Highway is in partnership with NV Energy and a number of the rural electric co-ops across the State, so we have had different models for the different territories. We have host sites, and private companies see the advantage of hosting the infrastructure as another way to expand their markets. People like to plug in, spend a bit of time there, come in and shop. What is contemplated in this plan is a way to level up the investment. My hope is it encourages even greater private investments, entrepreneurship and activity in this space to help build the EV charging infrastructure that is needed for the future.

MR. BROWN:

Beginning in the fall of last year, we saw a series of announcements by the major manufacturers of automobiles—Toyota, BMW and Volkswagen—of a real serious commitment to EVs. There will come a point mid-decade where suddenly we will reach a tipping point with respect to EVs given the size of the investment. I can furnish a couple of industry articles on that for the record.

To the earlier question, *The Wall Street Journal* story I referenced discussed the industrial storage batteries that allow for industrial storage of renewable energy.

SENATOR HAMMOND:

One question keeps coming to mind regarding the safety of battery storage. I need an idea of where we are with this. For instance, if a facility goes down and cannot deliver the energy we need, do we have the capabilities at this time

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for batteries to replace the facility that goes down and is unable to deliver the energy at certain times? Are we there now with battery storage?

MR. JOHNSTON:

This is happening quickly. In the last three years, NV Energy has gone to the PUCN and requested approval of what is increasingly being called "hybrid projects," utility-scale renewable solar projects coupled with battery storage. As the projects stay on schedule and come online over the next three years, by 2024 NV Energy will have control in its system of 1,028 MW of 4-hour battery storage. The economic driver for signing the agreements and going forward with the projects was to shift solar production in midmorning to midday when demand is not as high to store that energy.

If you have a solar facility that can produce 100 MW, you could acquire 100 MW of capacity out of that unit in the peak hours from 4 p.m. to 9 p.m. It provides storage to the extent it is fully charged. It provides flexibility to the system operator if you have storage. The rationale was if we move forward with the projects, it was to meet summer peak loads.

SENATOR HAMMOND:

If one of the solar plants went down or went off-line for an extended period of time, maybe more than anticipated, how much can we anticipate the batteries take the place of the downed solar plant?

MR. JOHNSTON:

Battery energy storage systems are short-term storage. The energy systems are to save renewable energy to match your system load, so you can maybe shift it around within a 24-hour time period. But no, at maximum discharge, a maximum of four hours is in the pipeline now.

With the current economics, people are not envisioning battery storage being a solution for storing energy for days, months or long-term storage. It gets to what Senator Spearman was referring to what has been termed "green hydrogen" where you are using renewable energy, solar and wind to create hydrogen by electrolysis, and then hydrogen can be stored for a long period of time like natural gas or oil.

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SENATOR BROOKS:

The technology exists. It is capable of managing the issues, and it is not cost-effective. That is not how we are utilizing it at this time. It is normally to shift the load for a few hours. It exists, but it depends on the application. For example, I maintain 25 kWh in my garage in an energy storage system which operates my home if there were a blackout. If that happened, I could run my home with solar indefinitely. It exists, and I pay dearly for it. It is about the economics.

SENATOR HAMMOND:

In section 31, putting in the Task Force is not about limiting the debate or the exchange of ideas. Sometimes, for both parties, it is nice to have someone there to report back to the larger Body, the caucus, as to what is happening. We are changing the direction of our energy policy in Nevada and adding to it in a major way. It would be nice to ensure we are collaborating with the Majority Party or vice versa in the future but ensuring someone is there who can report back. I like the idea of adding someone, despite the fact it is already large.

SENATOR BROOKS:

It is a great idea. As someone who has worked with you on interim committees, partisan politics does not factor into it. I have worked with Senator Pickard back in the Assembly on this language as we put it together. It is more about expertise and participation than to do with politics of party. I agree 100 percent and make that addition.

CHAIR HARRIS:

How might the transmission-only customers be affected with the project given they may not see any benefit of rates decreasing because they do not pay for electricity? Can you discuss the impact we may see on existing transmission-only customers?

SENATOR BROOKS:

Transmission-only customers do pay transmission rates and portions of the investment. Transmission-only customers will receive the benefit of the investment. Transmission-only customers by that name access the transmission system, and to make the transmission system more robust will gain access to more markets. We have language in S.B. 448 which directs the access to transmission-only customers so they can receive the benefits of the

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transmission investment they will help pay for. Their benefit might be greater than the average ratepayer because they will directly access renewable energy projects and possibly other markets.

Section 39 does provide guidance that access should be made, although that is covered in the transmission-only tariff now in place. We want to make it clear when they petitioned for access, they have access to that transmission line. Customers in this State who are buying renewable energy in one part of our State are located in another part of the State. They could do more if there were fewer constraints on the transmission system. By creating this, the transmission-only customer gains more access to renewable energy at a lower price.

CHAIR HARRIS:

The way this is set up, if benefits do not materialize, ratepayers would be taking the entire burden of this being "a great thing." Is there anything that protects for the worst-case scenario? You mentioned Tesla and NV Energy going in together in Nye County wanting to do charging stations. But that was a 50-50 split. What is the utility willing to put forward to assure ratepayers will not end up holding the bag if things do not work out?

SENATOR BROOKS:

If I understand your question by "things do not work out," we do not use electricity, or we do not receive the economic benefits beyond the cost of electricity that we are anticipating?

CHAIR HARRIS:

It is the latter. We build this infrastructure for charging stations and we do not acquire enough EVs to increase the demand, or building out the transmission does not lead to the benefits we are anticipating and the prices end up not going down, although it should. I follow your logic; I do not disagree. Part of the reason why this is so difficult through the existing process is because the benefits are a bit likely but unknown. I want to know the utility is willing to say to the ratepayers "This is worth you taking the entire burden," as opposed to us sharing it or us as shareholders because we are so convinced it is worth making it on our own.

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MR. CANNON:

This is a great example of a private-public partnership. We have a need that exists in Nevada. The transmission system in northern Nevada is fully constrained. No additional imports are available to come into northern Nevada. Unless we build infrastructure like this, our ability to support economic development down the road is limited. A transmission-only customer's ability to access the market is limited. The need for this infrastructure exists today. In addition to reliability concerns Senator Pickard raised, you can see that in northern and southern Nevada on Slide 6, Exhibit B, we jointly dispatch generation through one single line. If we lose that line, northern Nevada has to meet its energy needs by itself with a constrained system.

In addition, we cannot use low-cost energy to serve southern Nevada at opportune times. We can no longer economically dispatch our system. These economic benefits being discussed are in addition to the true reliability needs that Nevada has to address.

NV Energy is coming forward with private money and saying we are prepared to fund \$2.5 billion into the State. Shareholders do not recover on that money until that asset goes into service. When that asset goes into service, through a contested proceeding with the PUCN where parties can intervene, every party is allowed to question every cost we put into the project. The PUCN then sets how much of the investment we can recover and the rate we can earn on that asset.

We will bring \$2.5 billion to the table. We will put thousands of people to work today, and Nevadans will not be asked to pay for this investment until at least five to six years down the road. Nevadans receive the benefits of that immediate economic investment.

It is not a risk-free proposition. We do not know what the PUCN will approve. We will manage the project prudently and be reasonable in our expenditures. Many parties will intervene in that proceeding. We had many arguments over what costs were reasonable and prudent. We may not come out of that proceeding with 100 percent cost recovery. We will model one return rate for our ROI, but the Commission may choose a different return of investment. We go into this proceeding not knowing any of the numbers ahead of time. We go in trusting a balanced regulatory process is in place and a balanced outcome will

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be delivered at the end of the process. But we do it to ensure Nevadans can get to work, and that is our goal.

CHAIR HARRIS:

It seems you just described the existing process, not the new process where once you submit an application and as long as it is not perceived deficient, that application will be approved. Inevitably, the costs will likely be passed on to ratepayers as it should in many circumstances but without that contested case that exists today. Am I misunderstanding that part of the bill?

MR. CANNON:

The legislation does require us to submit a plan. That plan is a contested proceeding. Other parties have the opportunity to intervene to provide feedback with certain findings in this legislation, then the Commission can approve the plan we submit. While that plan is more prescriptive as described by Senator Brooks already, it is not a foregone conclusion.

That is one piece of the legislation. This legislation neither changes nor guarantees for us the recovery on that investment. That is a separate proceeding and a separate process where we are moving forward with making a significant investment in Nevada, putting Nevadans to work, trusting that a balanced process exists. You are right. We will submit it in a general rate case down the road, and that general rate case will be submitted with much debate over whether we proceeded reasonably. The PUCN will then ultimately make a decision.

This legislation does not change that. This legislation has no guarantee we will recover the dollars of this investment. We need to proceed reasonably and then trust in the process on the back end that we have the opportunity to recover our investment and earn a reasonable return. It is kind of the regulatory compact which exists between the utility as a private entity and the State.

DANNY THOMPSON (International Brotherhood of Electrical Workers Local Union 396):

The International Brotherhood of Electrical Workers (IBEW) supports S.B. 448. This bill creates thousands of good jobs. I am talking about good-paying jobs with benefits, health care and retirement. It is a great economic opportunity for the State from the benefits received by building out the infrastructure as well as job creation.

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ERNIE ADLER (International Brotherhood of Electrical Workers Local 1245):

The IBEW 1245 considers this a great bill in terms of job creation. The average wage on building transmission in this case is \$106,000 a year, which is an amazing wage for this region. We support it. In addition, \$49.3 million in sales tax will be generated by this transmission project which is returned to the county and State governments. It will be an economic boon for Nevada.

MICHAEL HILLERBY (Google):

Google supports S.B. 448, particularly around the provisions surrounding the regional transmission organization.

Google is proud to call Nevada home with a total committed investment of \$1.8 billion across two data center campuses, the first of which in Henderson reached full operations in February.

Governor Sisolak's State of the State Address sent a clear message regarding Nevada's commitment. A clean energy future is important to Google, which helps the company meet its goal of 24-7, carbon-free energy by 2030. It begins with the data centers in Nevada and elsewhere. Nevada's participation in the regional transmission organization is a critical tool for achieving the State's clean-energy goals. We look forward to working with you and the State to help Nevada be at the forefront of the clean energy economy and bringing new technologies to the market.

ED GARCIA (Con Edison Clean Energy Businesses, Inc.):

Con Edison supports S.B. 448, specifically the sections dealing with energy storage projects. Con Edison develops, owns and operates utility-scale renewable energy projects and is one of the largest solar owners and operators in North America. Con Edison Clean Energy Businesses is one of the companies the director of GOE referenced as looking for opportunities for large-scale storage.

One of the biggest barriers to development of these types of projects is uncertainty. This bill goes a long way toward alleviating much of that uncertainty, and Con Edison looks forward to developing more storage and renewable projects in Nevada.

BAIRD FOGEL (Haas Automation):

Haas Automation supports S.B. 448, specifically sections 45 through 47.

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People may know that Haas is a machine tooling and manufacturing company with plans to build a manufacturing facility in Nevada. It provides more than 2,000 high-paying, skilled-labor jobs that are deemed essential and, therefore, pandemic-proof.

The provisions of sections 45 through 47 which extend the Economic Development Electric Rate Rider Program to 2024, are a key component in the company's consideration and making southern Nevada a manufacturing hub. We look forward to working with local and State officials as we continue to develop plans.

SUSAN FISHER (Able Grid Energy Solutions; Ovation):

Able Grid supports S.B. 448, in particular the provisions of sections 3 through 8 relating to energy storage. Able Grid develops and builds low-cost energy storage assets that provide reliable and emissions-free capacity to manage physical and financial volatility of the energy markets. With the partners at IBEW, we want to see this expand to stand-alone energy storage. We understand this is a big step. We look forward to continuing to work with the sponsor over the Interim on this policy as the industry is further developed.

Ovation supports S.B. 448 regarding the rooftop solar portion, which we refer to as tenant solar. It is not something put together by Senator Brooks in a vacuum; we have had discussions with him for over four years. We had legislation during the Eightieth Legislative Session, but it was not quite gelled. We hope it passes this Session. This helps flatten out energy costs for both landlords and tenants. It is a large system going into one large meter rather individually metered for the tenants.

CHRISTI CABRERA (Nevada Conservation League):

The Nevada Conservation League supports S.B. 448. As home to one of the fastest-warming cities in the U.S., Nevada is already feeling the impacts of climate change. We have made strides to become a cleaner and greener state but are still not on track to meet Nevada's climate goals with plenty of work ahead.

Senate Bill 448 allows the State to continue to invest in a clean energy economy, make strides in achieving our carbon reduction goals and put more Nevadans to work in the fast-growing green energy economy. This bill prioritizes historically underserved communities. NV Energy is required to spend at least

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5 percent of its energy efficacy program on low-income customers. This bill doubles the investment to 10 percent, aligning our State with the national average. Targeted energy-efficiency measures lessen the strain for families paying high energy bills and prevent them from facing the difficult decision between paying bills and putting food on the table.

This bill leads to jobs and cost savings to power Nevadans' economic recovery with a focus on underserved communities that have been hit the hardest by climate change and the economic downturn. At the same time, the policies put us on a path to meet our goals of 100 percent clean energy and net-zero GHG emissions by 2050.

ANNETTE MAGNUS (Battle Born Progress):

Battle Born Progress supports S.B. 448. This bill contains many good provisions, but I want to speak to a few highlights we are glad to see in this bill. Senate Bill 448 expands energy efficiency programs to reduce the cost of energy particularly for low-income families while reducing pollution. In Las Vegas and in Reno, two of the Nation's fastest-warming cities, conserving energy with greater efficiency is imperative to keep costs and energy usage manageable in our hot summers.

This bill invests in building EV charging stations around the State. It not only incentivizes individuals, businesses and local governments to transition to EVs but also creates thousands of good-paying jobs in the transportation sector. It makes Nevada among the Nation's leaders for electrifying transportation and cutting harmful vehicle emissions.

This investment includes 40 percent of this EV charging infrastructure in historically underserved communities including communities of color. These communities face greater risks of asthma and other respiratory diseases due to air pollution as confirmed in recent data from the American Lung Association air report.

We appreciate the Senator for hearing the voices of the community who spoke out about this issue for years and taking steps to address it. This bill helps Nevada reach the Governor's emission reduction goals to fight climate change and create thousands of jobs.

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NATE BLOUIN (Interwest Energy Alliance):

Interwest is a regional trade association representing large-scale solar, wind and storage companies developing the renewable resources Nevada needs to meet the State's climate and energy policy goals. Interwest supports S.B. 448. This landmark legislation strengthens Nevada's position as one of the Nation's leaders in the new energy economy.

Interwest supports two pillars of S.B. 448. First is the direction given to Nevada utilities to join an RTO by 2030. Joining an RTO expands access to energy resources from across the region to complement Nevada's strong solar and geothermal capacity. The RTO reduces customer costs by allowing utilities to rely on diverse and low-cost renewable energy resources and by coordinating transmission planning and dispatch across a large region while sharing the costs across a broader base.

Second, S.B. 448 supports regional energy transmission by requiring a plan for construction of new high-voltage transmission lines which facilitate joining an RTO. This section is crucial to building projects already in the planning phase and brings new jobs to Nevada while opening up new areas to solar, wind and geothermal development. This bill rightly identifies transmission as a critical piece of the State's energy and climate strategy. While we support other aspects of the bill, including the expansion of the renewable energy tax abatement to energy storage projects, the two pieces I focused on are among the most important steps Nevada can take to meet the State's climate and energy goals. It positions Nevada to become a national leader in renewable energy development and bolsters the State's economy with new jobs and revenues.

CAROLYN TURNER (Nevada Rural Electric Association):

The Nevada Rural Electric Association and its utility members support S.B. 448. The Nevada Rural Electric Association represents the collective interest of ten consumer-owned utilities throughout the State which are democratically governed and operated on a not-for-profit basis. Each utility is motivated first and foremost to provide safe, reliable and affordable electric service to the communities it serves. Local governance resulted in the deployment of innovative solutions, for instance, solar community programs, earlier adoption of low-carbon energy resources and expansion of EV charging infrastructure in partnership with GOE.

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Nevada Rural Electric Association members acquire and deliver electricity independently. However, the majority of our members receive transmission services from NV Energy. Therefore, Nevada Rural Electric Association members have a vested interest in ensuring sufficient capacity exists in the State's transmission system to support the economic development goals and vitality of Nevada communities both rural and urban.

As demand in the energy system has grown in the State, congestions occurred within the confines of the existing infrastructure. It is critical that future projects address the constraints and prioritize the needs of native, or Nevada, loads within our State borders. In addition to investment in physical infrastructure, the legislation before you contemplates the formation of the organized energy market in the West over the next decade. We take no position on any particular market construct at this time; however, we support the establishment of the Regional Transmission Coordination Task Force as envisioned in section 31. We want to thank the sponsor for including a representative of the consumer-owned utility industry on the Task Force in recognition of the unique perspective we offer.

Our Association looks forward to the opportunity to work collaboratively with other stakeholders to ensure that participation in an organized market is achieved with the best interest of Nevadans in mind.

ALAN MOLASKY (Ovation Development Corporation):

Ovation has built and manages over 8,000 apartment homes. In addition to our market-rate communities, Ovation is one of Nevada's major providers of senior affordable housing.

Ovation Development Corporation supports S.B. 448, specifically section 36 that enables owners of multifamily properties to install renewable energy systems allowing residents to use clean renewable energy produced onsite. Ovation supports this bill. First, we learned about the threat to our planet from global warming, and this bill helps reduce our carbon footprint by expanding the use of renewable energy. Second, homeowners want and should have the choice to power their homes with renewable energy.

I will reiterate the provisions of section 36 that only apply to master-metered properties. A flat amount is simply rolled into the rent as opposed to individually

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metered units where tenants sign up with the local utilities and receive individual utility bills, which go up and down with the season.

ANN SILVER (Reno Sparks Chamber of Commerce):

The Reno Sparks Chamber of Commerce supports S.B. 448. With the passage of this bill, Nevada establishes a foundation for meeting its climate goals while businesses reduce carbon footprints and develop a sustainable, robust and clean energy economy. To accommodate our increasing share of renewable energy, we must include an updated transmission network. Building out this network quickly and efficiently provides a boost to Statewide commerce.

We support the bill's proposal to begin the investment in infrastructure needed to support clean EVs, buses, bikes and other modes of transportation. By building out a network of charging stations, Nevada can help more businesses and consumers make a thoughtful transition to EVs. Strategic placement of this infrastructure can help business as it entertains, feeds and attracts EV tourists with time for their vehicles to recharge.

Our Chamber supports elements of this bill that align energy planning processes with our State climate strategy goal of reaching carbon-free resources. It is a commonsense measure which enhances Nevada's reputation as a clean energy leader, protective and respectful of our natural resources and supportive of good business practices.

DYLAN SULLIVAN (Natural Resources Defense Council):

The Natural Resources Defense Council, an environmental group with 25,000 members and activists in Nevada, supports S.B. 448.

To combat air pollution that makes communities more vulnerable to Covid-19 and meet the State's goals for reductions of emissions of GHGs, Nevada needs to quickly transition the transportation sector to zero-emission vehicles powered by renewable electricity. This requires an active partnership between the electric industry, labor and independent firms to deploy charging infrastructure for all types of light-, medium- and heavy-duty EVs.

Senate Bill 448 jump-starts efforts and requires that no less than 40 percent of the investments be made in the historically underserved communities hit hardest by the pandemic and by air pollution.

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Installing electrical equipment needed to charge the EVs not only keeps workers on the job, it accelerates transportation electrification that benefits everyone. M.J. Bradley and Associates estimates that widespread adoption of EVs in Nevada could yield \$14 billion in avoided consumer expenditures, for instance gasoline and maintenance, \$3 billion in environmental benefits, and \$3.6 billion in reduced utility bills by 2050. This is because EVs can be charged when plenty of spare capacity is available on the grid which brings in new revenue in excess of the cost to serve that load, putting downward pressure on utility rates for the benefits of the utility customers.

The Legislature should take the estimates into account because they comport with what has already been documented in the real world.

LAURA GRANIER (Nevada Resort Association):

The Nevada Resort Association is here in technical opposition, even though I am cautiously optimistic, because of the timeline we find ourselves in. With 14 days left before sine die, complex issues, a lengthy bill and subtle language, we are concerned about unintended consequences that could be harmful to customers. We are supportive of transmission renewable energy and EV infrastructure investments.

Nevada Resort Association is a world-class leader in sustainability, environmental protection and clean energy development. We do not oppose the Greenlink transmission projects or the timeline. The Senator has proposed it be constructed by 2028, even though the Commission determined the construction of Greenlink North puts too much risk on utility customers at this time.

We proposed clarifying changes that will not affect the completion of the projects or the timeline by 2028 but ensure the Commission retains authority through regulatory discretion to protect customers from increased rates and making projects more expensive than they need to be.

The utility discussed customer refunds. In 2020, during the Covid-19 pandemic, the utility overearned by approximately \$100 million only for the Nevada Power Company. We calculate that, based on their filings, \$62 million is the customer share of the \$100 million-plus, or over 50 percent. It does not voluntarily give the refunds back. The refunds were fought for by the Bureau of Consumer Protection and members of the Nevada Resort Association that is representing customers, including its employees. Thanks go to the Commission's jurisdiction

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over the issues to ensure the utility does not overcollect. The utility is continuing to overearn.

The Commission requires the tools to keep an eye on that. We are not saying the utility should not earn an ROI. It should. But through the integrated resource plan process, it is allowed to recover its costs. We are concerned about EV infrastructure and ensuring any rate set for the energy sent to the units is set not in a 90-day time period but in a reasonable proceeding where the PUCN has the time to make the right decisions.

PATRICK DONNELLY (Center for Biological Diversity):

The Center for Biological Diversity is a strong proponent of renewable energy transition and the complete decarbonization of our economy. Many measures exist in this bill we support, but we oppose S.B. 448. This bill takes a shoot-first, ask-questions-later approach with regard to the deployment of transmission lines and large-scale renewable energy production. Senate Bill 448 completely forgoes any level of comprehensive planning or environmental review and instead throws the doors open to our public lands with new transmission lines accelerating huge amounts of new industrial energy production in remote parts of our State.

Large-scale renewable energy production and high-voltage transmission line deployment can have significant and environmental impacts on wildlife, public lands, water resources and historically marginalized communities. Since the introduction of Greenlink West at the PUCN, a dozen or more solar energy projects are being proposed along its potential alignment. While that might sound like a good thing to most people, it has been done with no planning for where the projects will go. In a few cases, it is sited in disastrously bad places for wildlife and the environment right on the doorstep of national parks.

Instead of instructing State agencies to complete a clear-eyed comprehensive review of where renewable energy might be appropriate in this State, S.B. 448 would throw open the doors to our most wild and pristine landscapes and rely on the tender mercies of the market and fossil fuel companies like NV Energy to decide the fate of Nevada's wildlands.

It gets to a fundamental problem. NV Energy is the fossil fuel industry. Its decade of polluting our climate has put us on the brink of climate disaster, and now we are letting NV Energy in the driver's seat while we try to clean up its

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mess and avoid climate catastrophe. We appreciate a few of the elements of this bill, but S.B. 448 results in significant harm to our public lands and wildlife, and we oppose. We support renewable energy but not in this way.

KEVIN EMMERICH (Basin and Range Watch):

Basin and Range Watch opposes S.B. 448 which was introduced on Thursday. We have not had time to review this bill. It is designed to create a big transmission center in Nevada, but I do not hear anyone discussing the environmental impacts or impacts to communities.

The Greenlink West project, which will be over 300 miles long and 20 percent on private land, requires eminent domain for many people in the Mira Loma area. This should be discussed because most people do not even know about this project. Environmentally, Greenlink West goes near Walker Lake. It will be impossible to hide from view. That is a bald eagle wintering area, and birds do crash into power lines. It is a known fact.

An area where this Greenlink West power line will be built is in a pronghorn breeding habitat near Scotty's Junction, a Nevada entrance to Death Valley National Park. Power lines designed for Greenlink West have supporting guidewires, which have been known to decapitate large game, such as wild horses and pronghorns.

We will see applications for solar next to Death Valley National Park in areas that are the last stronghold of western joshua trees. Because of the Greenlink lines, I know of solar applications in that area. Now an important sage grouse habitat, desert tortoise habitat and many different types of wildlife habitats are being threatened.

We want to state that transmission lines cause wildfires, droughts and increased heat that is seen from climate change. This will be tacked on to the ratepayers. The solar projects and the transmission are not worth it.

PETER KRUEGER (Petroleum Marketers and Convenience Store Association):

The Petroleum Marketers and Convenience Store Association regards itself as surrogates for the consumer. If this Committee can ensure a competitive and dynamic market is governing refueling, including alternatives similar to electricity, you make the transition more affordable and effective to the public. We are eager to work with the bill sponsor and help ensure that EV charging

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stations are available to Nevadans. Three of our members made private investments in EV charging, and they want to continue.

IAN BIGLEY (Progressive Leadership Alliance of Nevada):

While Progressive Leadership Alliance of Nevada appreciates the intent to limit brownouts in urban areas across the West, dedicated funding for historically underserved communities and living wage jobs, our belief for our transition to a renewable energy economy should be just and put people and planet first. This transition must ensure distributed generation can provide for communities to own their power not only access renewable energy.

We have a number of concerns regarding S.B. 448. Unfortunately, with the swiftness of this bill hearing, we were unable to connect with the bill sponsors prior to today but are looking forward to having that discussion.

The bill is largely focused on single occupancy vehicles when we should be fundamentally changing the way we move by prioritizing mass transit. The representation on the Task Force is unbalanced, leaning heavily toward corporate interests while representation for the general public is specifically limited to three. Furthermore, the Task Force leaves out Nevada's sovereign Indigenous nations.

This bill paves the way for Western Shoshone and Paiute lands across western Nevada to become a massive sacrifice zone to high-voltage transmission structures to support large-scale centralized energy generation. It is essential we include these communities in the decision-making process.

Crucial to our transition to renewable energy, we need a distributed energy grid which facilitates numerous small-scale generators sited on rooftops and historic destroyed areas, for instance, abandoned mine lands. We need to allow communities to own their power. This is essential to limiting sacrifice zones and ensuring Nevadans, not only corporations, benefit from this transition. While this bill mentions distributed energies, the directive to focus on high-voltage transmission and large-scale generation limits the feasibility of the truly distributed generation system.

A just transition to a renewable energy economy must shift us from an extracted economy to a regenerative economy and address historic inequities. We urge you take these concerns into consideration.

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ANDREW MACKAY (Nevada Franchised Auto Dealers Association):

We are the trade association that represents new automobile and heavy truck dealerships across Nevada. We are by no means experts in energy policy and is why we are neutral on this S.B. 448.

It is important to note that we do support a robust infrastructure plan. To spur widespread consumer acceptance and adoption of EVs, strong and reliable energy infrastructure is a key aspect of this overall strategy. Our automobile manufacturer partners have committed to spending nearly \$250 trillion to develop and bring to market new EV models, including 18 this year, 34 next year and over 100 different models by 2025.

A robust charging infrastructure has a positive impact on consumer's consideration of purchasing a new or used EV. Senate Bill 448 is essential in making this happen.

Our member dealers have invested millions of dollars and will invest millions more in tooling and employee training related to EVs. We are excited to bring more EVs, both new and used, to our customers and the market as a whole.

CESAR DIAZ (Charge Point):

Charge Point is neutral on S.B. 448. Charge Point is a leading provider of EV charging stations and network services in North America and the globe. Charge Point's network includes more than 650 charging spots in Nevada. In addition, Charge Point drivers have access to hundreds of additional charging ports in Nevada through roaming agreements. We are seeking modifications on this bill. From Charge Point's perspective, we support the efforts to accelerate the transportation electrification. While this bill recognizes importance of diversity and ownership of charging stations, we feel the bill could benefit by clarifying the mechanisms to achieve its diversity and ownership.

Section 49 pertains to EV charging infrastructure that will be developed between 2022 and 2024. We request provisions be added to support increased consumer choice, competition and innovation in the EV charging and private capital investment. This language is already contained in section 14 and should also be in section 49 to ensure a competitive market for EV charging services at present.

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With the minor changes, we trust this allows the EV charging market to develop in a competitive matter, attracting private capital which lowers the cost and the risks for the ratepayer.

JAINA MOAN (The Nature Conservancy):

We are here in a neutral position on S.B. 448. The Nature Conservancy supports a new energy economy and investments in clean energy, which are necessary for addressing our urgent threat of climate change. We trust any scenario for energy buildout in Nevada should include strategic implementation that allows for what drives our economy while balancing impacts on our ecosystems. This can be done with smart-from-the-start planning.

The State Climate Strategy published in December 2020 highlighted the need for smart-from-the-start renewable energy planning and the complex challenges for Nevada. A smart-from-the-start energy plan identifies and prioritizes lower impact areas where renewable energy generation, storage and transmission can be deployed while minimizing impacts to natural lands, cultural resources, recreation and other conservation values.

By applying such an approach, the future transmission plans under consideration in the State allow us to achieve our climate goals while creating a more efficient, equitable and comprehensive process. Such a process generates value for parties by harnessing knowledge from diverse stakeholders. Synthesizing this knowledge improves planning, permitting, coordination and implementation decisions and increases the odds that renewable projects minimize costs, maximize economic benefits and prevent avoidable mistakes.

We want to alert the Committee to our written testimony (Exhibit C). Thank you for consideration of our comments.

CHAIR HARRIS:

We will move to the work session on S.B. 442.

SENATE BILL 442: Prospectively eliminates the program to provide a partial abatement of property taxes for certain buildings and structures which meet certain energy efficiency standards. (BDR 58-1070)

SUSAN SCHOLLEY (Policy Analyst):

I will read from the work session document (Exhibit D) on S.B. 442.

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SENATOR PICKARD:

I am in agreement that we do not want to brand every building being built with adopting the new *International Energy Conservation Code*. It appears this is Statewide although it is a local designation or decision. I am not comfortable with eliminating what has been a successful program of developing energy-efficient buildings. We are eliminating the incentive without putting a new incentive in place. I am concerned this will stall. I will vote no because I am not comfortable, although I support the idea. I may change my vote on the Floor.

SENATOR HAMMOND:

I am a yes with reservation.

SENATOR BROOKS:

Is this the amendment where the Nevada Resort Association wanted to continue to receive tax credits for a longer period?

CHAIR HARRIS:

It is my understanding this is an amendment submitted from the stakeholders.

SENATOR BROOKS MOVED TO AMEND AND DO PASS AS AMENDED
S.B. 442.

SENATOR SPEARMAN SECONDED THE MOTION.

THE MOTION CARRIED. (SENATOR PICKARD VOTED NO.)

* * * * *

CHAIR HARRIS:

We will return to the hearing on S.B. 448.

SCOTT LEEDOM (Southwest Gas Corporation):

Southwest Gas supports many of the provisions of S.B. 448. We have a concern with one section of the bill and wanted to bring it to the Committee's attention.

Section 35 states no presumption of prudence in the public utilities rate case filings exist. This issue of rebuttable presumption in the public utility's burden of

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proving reasonableness in a rate case filing is a subject of an active appeal to the Nevada Supreme Court. With the case ongoing and yet heard by the Court, we feel it is premature for the Legislature to weigh in on the policy prior to the Justices ruling on the issue. We are concerned with the precedence it sets with the Legislature to adopt policies that are subject to active appeals being considered by the Nevada Supreme Court.

It is our hope the Legislature waits and determines what the Nevada Supreme Court concludes prior to taking action on this issue.

JOHN HADDER (Director, Great Basin Resource Watch):

Great Basin Resource Watch is neutral on S.B. 448. The general public had little time to consider the contents of this bill before this hearing. Senate Bill 448 needed a more encompassing, inclusive process.

We are in a precarious position of needing to take swift and prompt action to restore the climate balance. Largely, the actions focus on reducing the usage of GHG, mostly from the burning of fossil fuels. Electrical generation and transportation represent roughly 25 percent and 27 percent respectively of GHG contributions in the U.S. Therefore, shifting these sectors aggressively away from fossil fuels, which is inherent in S.B. 448, to renewable energy and electrification of transportation, a transition using new technology and materials, is at hand.

What is being envisioned is a massive increase of mining for the new materials. The expansion of existing mines and development of many new mines goes hand in hand with aggressive renewable energy goals and EV deployment in the absence of other policies to reduce demand and reuse materials. Large-scale mining is destructive to natural ecosystems and often disruptive to hosting communities.

Metals mining is one of the world's dirtiest industries and responsible for 10 percent of global change impacts, according to the United Nations Environment Programme. Great Basin Resource Watch supports transitioning from fossil fuel vehicles. However, the deployment must be done judiciously. Electric vehicles, like other technologies, require increased demand for many materials like lithium, cobalt, nickel, rare earths and others.

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No plan exists to address the inequity of frontline communities shouldering the effects of mining for the minerals. Thacker Pass is a good example of pressure on frontline communities.

Great Basin Resource Watch is calling for a just transition for both environmental justice and climate justice perspectives. It seems better to aggressively develop our public transit and otherwise minimize vehicle miles traveled, particularly passenger vehicles, and decrease demand for materials and extraction. This decreases GHGs.

CHELSEY HAND (Great Basin Resource Watch):

While our position is neutral, we see many shortcomings with S.B. 448.

First, there is the lack of emphasis on public transit and others ... (unintelligible statement) ... impact modes of transit. There should be an emphasis on how to move people away from single occupancy in vehicles. We need to reduce emissions and demand for materials or reduce the need to mine more materials. Failing to address the fundamental problems of consumption and transportation inefficiency in the U.S. further exacerbates environmental injustice and likely will not solve the underlying problem.

Second, there is no directive regarding recycling. The first sections ... (unintelligible statement) ... the importance of fostering recycling, particularly in product design. Recycling comes in as less resource-intensive than raw extraction. This could reduce raw extraction by 25 percent to 55 percent, according to the recent report sponsored by Earthworks.

Third, there is a lack of emphasis on distributed generation. Distributed generation is more in the public interest than using already disturbed land. It is more energy efficient since the electricity is used close to the demand, minimizing transmission losses. It creates more employment in general and over the long term importantly tends to provide employment to local and smaller electrical technicians and companies. It is an economic justice concern as well.

Fourth, long-range transmission development is too aggressive in the bill. This appears to benefit the utility the most.

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CHAIR HARRIS:

We will close the hearing on S.B. 448. Seeing no further business to come before the Committee, the meeting is adjourned at 7:01 p.m.

RESPECTFULLY SUBMITTED:

Debbie Shope,
Committee Secretary

APPROVED BY:

Senator Dallas Harris, Chair

DATE: _____

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EXHIBIT SUMMARY				
Bill	Exhibit Letter	Begins on Page	Witness / Entity	Description
	A	1		Agenda
S.B. 448	B	2	Senator Chris Brooks	Presentation
S.B. 448	C	1	Jana Moan / The Nature Conservancy	Neutral Testimony
S.B. 442	D	1	Susan Scholley	Work Session Document

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 **REQUEST DATE:** 06-27-2024
REQUEST NO: Staff 92 **KEYWORD:** approval greenlink north harry allen to northwest 525kV
REQUESTER: Danise **RESPONDER:** Lateef, Shahzad

REQUEST:

Reference: Transmission Infrastructure for a Clean Energy Economy Plan

Question: Please confirm or deny whether NV Energy is seeking continued Commission approval for the Greenlink North transmission line and the Harry Allen to Northwest 525 kV transmission line under NRS 704.751(8). If confirmed, please identify where in the instant Docket NV Energy provides the evaluation of each criteria listed in NRS 704.79877(4)(a) through 4(n). If denied, please provide the legal authority pursuant to which NV Energy is requesting continued Commission approval for the Greenlink North transmission line and the Harry Allen to Northwest 525 kV transmission line.

RESPONSE CONFIDENTIAL (yes or no): No.

TOTAL NUMBER OF ATTACHMENTS: None.

RESPONSE:

NV Energy is seeking continued Commission IRP approval of the Greenlink North transmission line and Harry Allen to Northwest 525 kilovolt transmission line under the Transmission Infrastructure for Clean Energy Economy Plan (TICEEP), filed with and accepted by the Commission in Docket No. 21-06001. The Commission accepted the plan pursuant to NRS 704.751(8).

The evaluation and subsequent approval by the Commission of the TICEEP for meeting each criterion listed in NRS 704.79877 (4)(a) through (4)(n) was provided in Docket No. 21-06001.

SUPPLEMENT NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 **REQUEST DATE:** 07-22-2024
REQUEST NO: Staff 93 **KEYWORD:** requesting continued
Supplement commission approval
REQUESTER: Danise **RESPONDER:** Lateef, Shahzad
greenlink west transmission

REQUEST:

Reference: Greenlink West

Question: Please confirm or deny that NV Energy is seeking continued Commission approval for the Greenlink West transmission line pursuant to NRS 704.741 and 704.746. If denied, please provide the legal authority pursuant to which NV Energy is requesting continued Commission approval.

ORIGINAL RESPONSE:

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

NV Energy is seeking continued Commission IRP approval for the Greenlink West transmission line in accordance with the applicable provisions of NRS and NAC Chapters 704..

SUPPLEMENTAL RESPONSE:

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

Denied. NV Energy is seeking continued Commission IRP approval for the Greenlink West transmission line in accordance with the applicable Optional Pricing and Resource Planning provisions of NRS and NAC Chapters 704.

SUPPLEMENT NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO:	24-05041	REQUEST DATE:	07-22-2024
REQUEST NO:	Staff 94 Supplement	KEYWORD:	ft churchll comstock 345kV lines #1 #2; seeking continued commission approval
REQUESTER:	Danise	RESPONDER:	Pottery, Charles (NV Energy)

REQUEST:

Reference: Ft. Churchill to Comstock 345 kV Lines #1 & #2

Question: Please confirm or deny that NV Energy is seeking continued Commission approval for the Ft. Churchill to Comstock 345 kV Lines #1 & #2 under NRS 704.741 and 704.746. If denied, please provide the legal authority pursuant to which NV Energy is requesting continued Commission approval.

ORIGINAL RESPONSE:

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

In Docket No. 20-07023, the Commission approved the permitting, design, land acquisition, and construction of Comstock #1 345 kV transmission line from Fort Churchill Substation to Comstock Meadows Substation proposed to be in-service by December 31, 2026. NV Energy is seeking continued IRP approval for the previously approved Ft. Churchill to Comstock 345 kV Lines #1. In Docket No. 20-07023, the Commission approved the conceptual design, permitting, and land acquisition of the Comstock #2 345 kV transmission line from Fort Churchill Substation to Comstock Meadows Substation (part of Phase II). In Docket No. 20-07023, the Commission did not approve construction of this line. NV Energy is now requesting Commission IRP approval to construct this line.

SUPPLEMENTAL RESPONSE:
SUPPLEMENT : 1
RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE: Denied. In Docket No. 20-07023, the Commission approved the permitting, design, land acquisition, and construction of Comstock #1 345 kV transmission line from Fort Churchill Substation to Comstock Meadows Substation proposed to be in-service by December 31, 2026. NV Energy is seeking continued IRP approval for the previously approved Ft. Churchill to Comstock 345 kV Line #1, in accordance with the applicable Optional Pricing and Resource Planning and Resource Planning provisions of NRS and NAC Chapters 704. In Docket No. 20-07023, the Commission approved the conceptual design, permitting, and land acquisition of the Comstock #2 345 kV transmission line from Fort Churchill Substation to Comstock Meadows Substation (part of Phase II). In Docket No. 20-07023, the Commission did not approve construction of this line. NV Energy is now requesting Commission IRP approval to construct this line.

**MINUTES OF THE MEETING
OF THE
ASSEMBLY COMMITTEE ON GROWTH AND INFRASTRUCTURE**

**Eighty-First Session
May 25, 2021**

The Committee on Growth and Infrastructure was called to order by Chair Daniele Monroe-Moreno at 2:34 p.m. on Tuesday, May 25, 2021, Online and in Room 3143 of the Legislative Building, 401 South Carson Street, Carson City, Nevada. Copies of the minutes, including the Agenda (Exhibit A), the Attendance Roster (Exhibit B), and other substantive exhibits, are available and on file in the Research Library of the Legislative Counsel Bureau and on the Nevada Legislature's website at www.leg.state.nv.us/App/NELIS/REL/81st2021.

COMMITTEE MEMBERS PRESENT:

Assemblywoman Daniele Monroe-Moreno, Chair
Assemblyman Howard Watts, Vice Chair
Assemblywoman Tracy Brown-May
Assemblyman John Ellison
Assemblyman Glen Leavitt
Assemblyman C.H. Miller
Assemblywoman Sarah Peters
Assemblyman Tom Roberts
Assemblywoman Shondra Summers-Armstrong
Assemblyman Jim Wheeler
Assemblyman Steve Yeager

COMMITTEE MEMBERS ABSENT:

None

GUEST LEGISLATORS PRESENT:

Senator Chris Brooks, Senate District No. 3

STAFF MEMBERS PRESENT:

Katie Siemon, Committee Policy Analyst
Jessica Dummer, Committee Counsel
Devon Kajatt, Committee Manager
Lori McCleary, Committee Secretary
Trinity Thom, Committee Assistant



OTHERS PRESENT:

Doug Cannon, President and CEO, NV Energy
David Bobzien, Director, Office of Energy, Office of the Governor
Michael Brown, Executive Director, Office of Economic Development, Office of the Governor
Bob Potts, Deputy Director, Office of Economic Development, Office of the Governor
Leslie Mujica, Executive Director, Las Vegas Power Professionals
Bob Johnston, Policy Advisor, Nevada State Democratic Caucus
Danny Thompson, representing International Brotherhood of Electrical Workers, Local 1245 and Local 396
Matthew Griffin, representing Switch
Dan Musgrove, representing Southern Nevada Building Trades Unions
Susan Fisher, representing Ovation Development Corporation; Cyrq Energy; and Able Grid Energy Solutions
Mackenzie Warren, representing Nevada State Apartment Association
Tom Polikalas, representing Western States Hydrogen Alliance
Baird Fogel, representing Haas Automation, Inc.
Sarah Steinberg, Principal, Advanced Energy Economy
Carolyn Turner, Executive Director, Nevada Rural Electric Association
Rudy Zamora, Program Director, Chispa Nevada
Laura Granier, representing Nevada Resort Association
Jaina Moan, External Affairs Director, The Nature Conservancy
Patrick Donnelly, Nevada State Director, Center for Biological Diversity
Jessica Ferrato, representing Solar Energy Industries Association
Rose McKinney-James, representing Valley Electric Association
Andy Donahue, representing Laborers-Employers Cooperation and Education Trust
Angie Dykema, Nevada Representative, Southwest Energy Efficiency Project
Dylan Sullivan, Senior Scientist, Climate and Clean Energy Program, Natural Resources Defense Council
Richard "Skip" Daly, representing Laborers Union, Local 169
Cesar Diaz, Senior Policy Manager, ChargePoint, Inc.
Matt Rubin, Clean Energy Program Analyst, Western Resource Advocates
Emily Duff, Manager, State Policy, Ceres
Rob Benner, Secretary-Treasurer, Building and Construction Trades Council of Northern Nevada
Wendi Newman, Executive Director, Unified Construction Industry Council
Elsbeth Cordua DiMarzio, representing Toiyabe Chapter, Sierra Club

Chair Monroe-Moreno:

[Roll was called. Committee rules and protocol were explained.] We only have one bill hearing today, Senate Bill 448 (2nd Reprint). I am working on getting an overflow room for those of you waiting in the hallway. Due to the late start, we will have to limit comments. We will have two minutes each for comments in support, opposition, and neutral. I will have

to limit each presenter to 15 minutes because most of us have a 4:30 p.m. committee we have to get to. I will open the hearing for Senate Bill 448 (2nd Reprint) and welcome Senator Brooks to the Assembly Committee on Growth and Infrastructure.

**Senate Bill 448 (2nd Reprint): Revises provisions governing public utilities.
(BDR 58-46)**

Senator Chris Brooks, Senate District No. 3:

If it is okay with you, Chair Monroe-Moreno, if I could be joined at the table by Bob Johnston, who is a policy analyst for the Senate Democratic Caucus and helped me work on this bill and a few others.

Chair Monroe-Moreno:

Welcome to the table, Mr. Johnston.

Senator Brooks:

I have a PowerPoint presentation [Exhibit C], but I will not walk through every slide due to our time constraints. The slide deck was presented in a binder to the Committee members with some other exhibits. I will put the presentation up on the screen so we can all take a look at it.

Unfortunately, I cannot open the file, but you each have the presentation in front of you.

Senate Bill 448 (2nd Reprint) is about my desire to address the climate crisis that faces us, while creating good, high-paying, local jobs and economic opportunities for the state of Nevada and industries within the state of Nevada. Senate Bill 448 (2nd Reprint) really hits upon a few key points: provide economic diversity; provide new, high-paying jobs; increase grid resiliency in the state; provide new tax revenues; decrease carbon emissions and air pollution; and increase economic environmental justice for Nevadans.

The way S.B. 448 (R2) tries to accomplish these goals is by taking advantage of some of the benefits and resources we have here in the state of Nevada. Nevada has almost no fossil fuels, so we import over \$8 billion a year in fossil energy in the form of gasoline, fuel, natural gas, and electricity. We have abundant renewable resources in solar, geothermal, wind, and hydropower. Geographically, we are located right in the heart of the western electric grid.

Chair Monroe-Moreno:

Senator Brooks, I need to interrupt you for a moment. For those who were waiting in the hallway, we now have an overflow area available. If you are not presenting or speaking today, you can make your way to Room 3137.

Senator Brooks:

We are also adjacent to the largest energy and economic load in the entire United States. We have a well-established workforce here in Nevada. We have unions and apprenticeship programs, community colleges, construction industries, and universities and research facilities. We have very good infrastructure, mainly in southern Nevada, with an international airport, relatively new roads and rail, and new transmission and distribution systems. Nevada also has a very business-friendly climate. It is easy to do start-ups here because we have no corporate income tax and we have many programs and policies that support energy projects. All of this sets the table for what we tried to accomplish in S.B. 448 (R2).

Senate Bill 448 (2nd Reprint) is made up of about eight different components. The major components are transmission infrastructure, transportation electrification, energy efficiency, rooftop solar, resource planning to reduce carbon emissions, energy storage, and Economic Development Electric Rate Rider Program. The last thing the bill does is it has some regulatory cleanup that applies to some of the provisions of this bill moving forward.

I will briefly go through the bill and then jump right into questions. You all have the slide deck in front of you and hopefully have had a chance to look at it over the last couple of days.

The transmission infrastructure piece does two things. One of the main things it does is it directs the utility to make a \$100 million investment in charging infrastructure in the places where Nevada needs charging infrastructure the most. The other thing it does is it creates a planning process within the utility planning process on the electrification of transportation.

Electrification of the transportation sector is coming as a result of technological advances, dropping prices, and consumer demand. The number one hurdle for the adoption of electric vehicles in any state, let alone Nevada, is the lack of charging infrastructure for those Nevadans who do not have access to it in their home, do not own their home, or do not have it at their place of work, which is the vast majority of Nevadans. To benefit the most from the low cost of ownership of electric vehicles, the environmental benefits, and the air pollution benefits of electric vehicles, we need to make charging infrastructure available for Nevadans. The other benefit of that is it drives down the prices of electricity for all other Nevadans as we see more and more charging take place.

Another piece of the bill is the transmission infrastructure. On the fifth slide of the slide deck [page 5, Exhibit C], it shows a picture of the high-voltage bulk transmission system in the western United States. All around Nevada is a spiderweb of high-voltage transmission lines that move energy around the West. Nevada is a very conspicuous hole in that donut. By just building a few lines, it would connect the dots between some of our largest loads and largest generation resources in neighboring states. It would open the opportunity for Nevada to become a hub of energy trading and clean energy trading across the entire western United States. I believe Mr. Cannon is going to speak about that as well when I get done.

This bill directs the investment in transmission lines across western Nevada and central Nevada to connect three large energy hubs that we have in the state of Nevada. In the eastern part of Nevada, we have Robinson Summit Substation. In the western part of Nevada, we have Fort Churchill Generating Station, not too far from here. In southern Nevada, we have one of the most busy and active energy hubs in the entire United States right outside of Las Vegas, with the Mead, Marketplace, and Eldorado Substations. A lot of that infrastructure was put in place almost 100 years ago by the Hoover Dam.

By connecting the dots on those three energy hubs, we could then access markets in the Northwest, for instance, where we could have very low-cost, zero-carbon hydropower; or in Wyoming and Idaho where we have wind; or in the southwest part of the United States where we have excess solar and geothermal generation. By connecting all of those together, it makes a far more resilient grid and lower-priced energy in the future because we have access to other markets.

We just saw what happened in Texas, where their transmission system was isolated from the rest of the country. Not only can there be a failure if there were high-load incidents, but there is also price volatility associated with that. By spreading the load and generation across an entire region, there is more pricing stability, lower prices, more access to markets, and more resiliency in the transmission system. That lower-cost electricity gets passed on to all ratepayers and all consumers.

Jumping back to the transportation electrification, one of the benefits is the reduction in pollution as well. We find pollution disproportionately affects traditionally underserved communities. There is a tremendous amount of data that shows asthma and other pollution-related ailments, sicknesses, and diseases are concentrated in areas where traditionally underserved communities live and have lived. That is no different in southern Nevada or northern Nevada than it is anywhere else in the country. By trying to aim and direct a minimum of 40 percent of all the investments made in this electrification infrastructure plan toward those communities, we are trying to combat what has been the disproportional negative effects of pollution and, to a certain extent, climate change in these communities, but also direct the benefits and opportunities to those same communities.

Throughout this bill, you will see where that definition is used. Rudy Zamora from Chispa Nevada will also be presenting. I have worked with him over the last year to come up with a definition and data to support the definition in the implementation of this plan to help target the historically underserved communities. I want to thank Chispa and the Natural Resources Defense Council for the work we have done over the last year.

Forty percent of the investment in electrical infrastructure for charging would be directed toward those communities. Twenty percent would be directed toward the entertainment and resort communities. Where do many Nevadans work, play, and need access to charging? That would be in those same resort areas. Where are all the transportation network companies and taxis? There have been a few bills moving through this Legislature that address this, but where do they spend most of their miles driven? Right in the resort corridor.

Where do most of the Nevada tourists go? Right there in the resort corridor. We want to direct some of the investment specifically there to live on those properties so they can serve their employees and the visitors to our state.

The rest of the bill is directed into different categories. The one I am most excited about that we have worked on for a few years, including a bill I did last session, is electric school buses. School buses are a perfect candidate for electrification, both for the health benefits it provides to the children who ride on them and because they are parked in one place every night. School buses have a very set schedule of when they run. We could use off-peak power to charge those buses at night.

Going back to the key components of the bill before we jump into questions and possibly explaining the individual sections, we doubled the energy efficiency portion that currently exists in law for low-income families in the state of Nevada. We directed that investment toward those same historically underserved communities. Having a more comprehensive and holistic definition of the folks we are trying to serve in Nevada is going to serve us well moving forward. We have tried to do that through the definition of historically underserved communities as it applies to doubling the low-income portion of energy efficiency in the bill.

Another thing we do is expand the use of rooftop solar on multifamily, low-income, and senior living facilities in the state of Nevada. There is a current business model for large multifamily homes—my grandma lives in one in North Las Vegas—where all utilities are included with the rent. There is one owner and one meter. They buy electricity and water and provide everything generally to seniors and low-income Nevadans in a particular type of housing. We want to make sure we can apply solar on those types of buildings so they can provide the environmental benefit to the community and provide an energy benefit to the consumers who live there onsite. This bill addresses that issue.

This bill also addresses resource planning instead of resource planning to keep the lights on tomorrow or resource planning to meet a renewable portfolio standard, which has served us well to get where we are now. We need to look at how we are going to get to zero. If we are trying to get to zero carbon as a community, as a state, as a nation, and even as a planet, we need to have long-term goals on how to get there and we need to set all of our resource decisions—whether it be transmission, power purchases, new power plants, renewable energy—should be based on one thing: getting to zero carbon by the goals we have set for ourselves as a state. In a bill from last session that I worked with many of you on, we did set those standards or goals.

We addressed energy storage. To apply the Renewable Energy Tax Abatement program, this is really more of a clarification than an expansion. This allows for energy being made by renewable energy under the current Renewable Energy Tax Abatement program to include the storage component as well into the overall Renewable Energy Tax Abatement project. We made a slight tweak to it because technology is changing. One thing that is clear is I think hydrogen will play a role in energy storage in the future. It will play a role in using our gas pipeline and natural gas infrastructure system in the state of Nevada. I think

hydrogen is part of that mix and part of that future. By making a slight tweak to this language, I think the hydrogen storage created by clean, renewable energy for the purposes of other uses besides electricity should be included as well, and now is.

Then we opened up the Economic Development Rate Rider Program again. This existed in northern Nevada, very successfully, to attract high electricity users. Large 24/7 users of electricity benefit us all by driving down the cost of electricity for other users on the system. The jobs and economic benefits they create are incredibly important for our tax revenues and for the jobs we need here in the state of Nevada to diversify our economy. It has never been more obvious than it is right now what happens when we do not do that.

The Economic Development Electric Rate Rider Program is now open and available in southern Nevada again for manufacturing and other types of heavy industry to move to southern Nevada. I think we will have some testimony later—time permitting because people traveled a long way—talking about the benefits of that and how this has helped spur development in southern Nevada specifically. It was incredibly successful in northern Nevada to get a lot of industry that now exists here.

We made a few regulatory cleanup provisions. One of them was regarding some holdover language from when Sierra Pacific Power Company and Nevada Power merged to become NV Energy. We made a few tweaks there. Also, as we are moving forward with investments in the future and we are directing the utility to make sizeable investments in Nevada, we want to make sure, when they are recovering the rates on that investment, they are doing it in such a manner that benefits the ratepayers of the state of Nevada the most. I think by directing a private company to bring billions of dollars of capital into the state and deploy it, a rate of return is absolutely something that should be allowable and encouraged. At the same time, we want to make sure there is some oversight and accountability as they are doing that to make sure Nevadans pay the least amount they need to.

All of this is within the framework of infrastructure spending and federal funds that will be coming to the state of Nevada. We are trying to create a framework and methods so we can deploy that federal infrastructure funding as it comes to the state. There is some language that directs that in the bill as well.

I know it is a lot. I tried to get it to the Committee as soon as I possibly could with explanations and indexes [[Exhibit D](#), [Exhibit E](#), and [Exhibit F](#)], in addition to the slides, to help digest 75 pages of what I find incredibly fascinating and riveting reading.

Time permitting, I have a few people who would like to say a few words very briefly.

Chair Monroe-Moreno:

We have members who have to go to the Senate for hearings. Could you go over the amendment [[Exhibit G](#)] before they have to leave?

Senator Brooks:

On the Nevada Electronic Legislative Information System is a proposed conceptual amendment. The amendment addresses some issues that were raised in the Senate hearing, as well as in conversations with Assembly members.

First, the amendment adds some Assembly members as cosponsors on the bill [page 1, Exhibit G]. Then we make a few small changes. The first is to amend the definition of "energy storage technology." Before, it could be released as "electric power," but now it states it can be released "at a later time," which is more consistent with the broad definition of energy storage. It is taking energy, in this case created by electricity, and storing it to be released at a later time. That envisions it being used for something besides just electricity. That speaks to the future of transportation and gas.

We also make a similar change to section 4 to accomplish the same goals. Change No. 3 makes a small change to the way the Office of Energy within the Office of the Governor is able to use funding within their funding account. It turns out, when the Office of Energy is directed to do things, they actually need to have more resources. This allows them to use the resources they have available to them.

A past member of this body, whom I keep in contact with daily, Mr. Skip Daly, and the electrical workers, brought to my attention that there were some changes I made in the last legislative session as to how we do the renewable energy tax abatement that are not working for all of industry. Change No. 4 [page 2] makes a slight change to how we view wages for the purposes of renewable energy projects for the renewable energy tax abatement.

No. 5 is an amendment to section 31. The Regional Transmission Coordination Task Force—which I forgot to talk about when I was walking through the bill—has representatives who are the key components of a transmission planning process, whether they be the biggest loads taking off of transmission, the biggest generators putting on transmission, or the operators within the state who operate transmission. We thought it was incredibly important to add a representative from the Nevada Native American community, so we added a member appointed by the Nevada Indian Commission of the Department of Tourism and Cultural Affairs to the Task Force. When we are looking at the state of Nevada, we are looking at the entirety of the state from a siting standpoint. I do not know who better than to be involved in a process where we make those decisions than a representative from the Nevada Indian Commission.

That was the last change. The amendments are relatively simple and relatively brief. The bill, however, is not. Would you like me to take questions from members who have to leave before any of the other presenters come up?

Chair Monroe-Moreno:

Will your presenters be brief?

Senator Brooks:

Yes, they will.

Chair Monroe-Moreno:

We will go ahead and hear from the other presenters and then we will have the members who have to leave ask their questions.

Senator Brooks:

Mr. Doug Cannon from NV Energy, who will be making all these investments and operating all the systems we are talking about, will speak next.

Doug Cannon, President and CEO, NV Energy:

Chair Monroe-Moreno, I want to thank you for the opportunity to be here today in front of your Committee. I also want to thank Senator Brooks and Governor Sisolak for their leadership on these critical energy issues. However, this is really about carbon reduction and setting up a sustainable energy system for the future for generations to come. It is also about helping Nevada recover from COVID-19 and putting all Nevadans to work. I also want to acknowledge the broad base of stakeholders who have been engaged in the creation of this bill. I will not name them all because I would forget someone and that would be a mistake, but I want to thank that broad base of stakeholders. It has been a tremendous community effort.

Senate Bill 448 (2nd Reprint) advances the new energy economy in Nevada. First, it supports development of critical transmission infrastructure, essentially the interstate highway for the energy system. The transmission proposed in S.B. 448 (R2) will improve reliability for all Nevadans; it increases development of renewables to reduce carbon emissions; it increases energy capacity to support economic development throughout our state; and it improves the ability to import and export energy, as Nevada is a central participant in the western energy market.

This infrastructure will create nearly 4,000 skilled labor, good-paying jobs here in Nevada. It will have \$690 million of direct economic benefit based on a \$2.5 billion investment. Some may ask about the rate effect. Here is the example I can provide: Since 2013, Nevada has eliminated coal generation in southern Nevada, we have added the One Nevada Transmission Line, and invested more than \$4.3 billion in the electric system. What has happened to rates in that time? They are lower today than they were in 2009. I will say that again. Rates are lower today than they were in 2009 with all that investment going in. It creates new opportunity to import lower cost energy and it leads us to develop lower cost renewables. All that brings benefits to all Nevadans because it keeps money in the pockets of families so they can use it to support their livelihoods.

In addition, S.B. 448 (R2) puts in place an electrical vehicle infrastructure plan. First, there will be a three-year, \$100 million investment. This immediate investment in Nevada puts people to work. It puts them to work now in high-skilled, good-paying jobs. It works to

reduce carbon emissions from our transportation sector; it targets investment in underserved and underrepresented communities to ensure all Nevadans benefit from vehicle electrification and all Nevadans benefit from the new energy economy.

I urge this Committee and its members to support S.B. 448 (R2) to advance the new energy economy in Nevada and to reduce carbon emissions to ensure a sustainable energy future for all generations of Nevadans to come. I am prepared to answer any questions, and I appreciate your time.

David Bobzien, Director, Office of Energy, Office of the Governor:

At this point in session, we very much appreciate your attention. I want to thank Senator Brooks for introducing and shepherding this legislation and incorporating the Office of Energy, Office of the Governor, in the presentation.

We are here in support of the bill. I would like to take a few moments to highlight areas of support for the legislation, the first one being the Regional Transmission Coordination Task Force. In December 2019, Governor Sisolak joined a convening of other governors to discuss the future of the western grid with a focus on price stability and reliability for customers, economic opportunity, and increased adoption of renewable energy, all while facing the pressures and impacts of a changing climate.

This convening of governors was from states as diverse as Idaho, Colorado, Oregon, Arizona, and Wyoming. What has come out of that is what is known as the WIRED initiative [Western Interconnection Regional Electricity Dialogue], which is a dialogue between utilities and state energy advisors to talk about the future of the grid, to talk about how markets can help everyone in the region and further our energy goals.

The Governor's Office of Energy stands ready to support the task force. We know there are a lot of inputs and a lot of complicated issues for this group to dive in on. We are excited about the work and ready to get going.

I want to talk about our support for the expansion to storage for the Renewable Energy Tax Abatement program. There are certainly a lot of things happening on the storage front that are very exciting and contribute to economic opportunities as well as to the stability and reliability of our electricity grid.

We are very excited about transportation electrification. I am sure members are familiar with the work we do at the Governor's Office of Energy in this space. We are very much looking forward to this forced multiplier. I want to particularly call attention to section 49, subsection 3(c), which is the Public Agency Electric Vehicle Charging Program. That section requires the utility to collaborate with the Department of Administration, the State Department of Conservation and Natural Resources, the Department of Transportation, and the Office of Energy in developing the program. I am pleased to report that, in anticipation of passage, the company is already meeting with the administration on this particular section as well as the broader transportation electrification plan. We are very excited about that

collaboration. As the electric vehicle market grows, we absolutely want to ensure that all Nevadans have access to clean transportation by supporting the development of this infrastructure. We think it is very innovative. The focus of 40 percent of the bill's transportation electrification plan is being dedicated to investments made in or that benefit historically underserved communities.

That concludes my remarks. Thank you for the opportunity. Unfortunately, I have to get to another hearing, but I am happy to follow up individually if there are questions to me specifically after this hearing.

Senator Brooks:

I have Director Brown and Bob Potts from the Office of Economic Development (GOED) with the Office of the Governor as well. Mr. Potts is on Zoom and Director Brown is here in the room.

Michael Brown, Executive Director, Office of Economic Development, Office of the Governor:

Twenty years ago, this Legislature was working on energy legislation as the lights were going out across the state. The Enron Corporation catastrophe in California revealed the weaknesses of Nevada's energy system. This Legislature led, in a bipartisan way, by Randolph Townsend and Barbara Buckley, who fashioned legislation that stabilized that market, saved our utilities, and put us on a platform to go forward. Included in that mix was Rose McKinney-James, who put the state on the path to be a leader in renewable energy, so much so that now we are looking at opportunities in this area; so much so that we hired SRI International to look going forward as to how the state comes out of this pandemic and builds a more resilient and stronger economy. Ms. McKinney-James recommended that we become a real leader in this area. This legislation does that.

It is an opportune time to consider this. American manufacturers, encouraged by the Biden Administration to restore manufacturing to the United States and also try to sort out their own logistical issues, are looking across the United States, particularly Nevada because we are a Pacific Time Zone state. The manufacturers are knocking on the door of GOED. Our regional economic development authorities are different than what we have ever seen before. I was with one about three weeks ago and the first thing they wanted to talk about was the accessibility of green energy in the state.

This is an opportunity for Nevada that we need to take advantage of. These companies are also having to meet Wall Street goals for environmental, social, and governance (ESG) commitments. Nevada has an opportunity to give them the opportunity to meet those ESG goals.

Finally, I have to say jobs, jobs, and jobs. Our advisors at Applied Analysis estimate the Greenlink Nevada will create \$690 million in economic activity and support close to 4,000 jobs with a \$400 million payroll. The man who really knows these numbers is the Deputy Director of GOED, Bob Potts. I will let him say a few words to that effect.

Bob Potts, Deputy Director, Office of Economic Development, Office of the Governor:

I will talk a little bit about the economic opportunities of the Greenlink project, and then provide a brief overview of the business development activity we currently have going on here at GOED, and the importance of this project to overall economic development and diversification in the state.

As Director Brown mentioned, if we look at this 12-year construction period for this project, especially when we are talking about the transmission infrastructure, we expect to generate \$690 million in economic activity and support over 3,700 person-year jobs paying over \$406 million in wages and salaries. If you look at the construction phase of this project, that pencils out to a \$1.44 return on every \$1 invested. That is just on the initial \$479 million of Nevada's investment in the total project cost of \$2.1 billion. If you look at the spinout numbers and the indirect induced spinout effects, those are expected to add an additional \$211 million in economic impact. The return on investment of that number, if you look at the full economic impact, is \$1.88.

I will quickly talk about the business pipeline activity and what we are seeing in the state. Before I do, however, whenever we work with companies, whether they are expansions or relocations, there is always a laundry list of what matters most to the companies. If you look at the top ten things that matter to companies when they are thinking about making these kinds of decisions, workforce is always near the top. However, everything else has to do with cost. Energy costs are always in the top five. What is the cost of energy? This is particularly true when it comes to manufacturers.

If I go back and look at our March and December GOED board meetings, over 90 percent of the companies were manufacturers. Nevada has shown a distinct competitive advantage when it comes to manufacturing, in particular, advanced manufacturing. This is something we need to do everything we can to keep moving forward as we try to develop and diversify our economy.

Looking specifically at projects currently in the queue, there are 19 active projects and 14 projects on hold. Of the 19 active projects we are working on right now, 14 of them, or 75 percent, are manufacturers, 5 of which are related to electric vehicles; 16 of the 19, or 86 percent, are in Clark County. This creates a huge opportunity for us in Clark County with these companies, especially when so many of them are manufacturing and dealing with the procyclical issues that we have with the economy, particularly after the downturn caused by the pandemic.

In total, these projects are estimated to bring in over 12,500 jobs at or above the state's average wage, and about \$9.7 billion in capital investment. We know not all of these will happen, but these are the active projects. If I look at the 14 projects we have on hold, 9, or 64 percent, are manufacturers; 10, or 71 percent, are in Clark County. These projects are estimated to bring 8,400 jobs with an average wage of over \$25 per hour, and well over \$1.9 billion in capital investment. I say that because, again, they are in the due diligence process. I know those numbers are going to grow a lot on these on-hold projects.

I want to emphasize that of these 19 active projects we are working with right now, particularly the manufacturers, 2 companies have asked us about Nevada's renewable energy portfolio. What this Greenlink project means to economic development and diversification in the state is critically important at this juncture.

I appreciate your time and will turn it back over to the Chair and the Committee.

Senator Brooks:

I was wondering if I could bring Leslie Mujica up. She is from the Las Vegas Power Professionals, which represents the businesses and workers who would be working on the majority of these projects.

Leslie Mujica, Executive Director, Las Vegas Power Professionals:

The Las Vegas Power Professionals is a partnership between the International Brotherhood of Electrical Workers (IBEW) and the National Electrical Contractors Association (NECA). It is an honor to be here this afternoon. Please forgive me if I seem a little bit nervous. This is my first time testifying here. This is very important, and I am passionate about workforce development, helping our communities, and the future of the great state of Nevada.

On behalf of Las Vegas Power Professionals, the IBEW, and NECA, I would like to testify in full support of S.B. 448 (R2). We would like to thank the bill sponsor and all of the stakeholders who put so much work into this bill. We are excited about this bill because it will bring thousands of high-paying jobs to Nevada and a trained workforce that will benefit from our clean energy economy future.

Both the IBEW and NECA stand ready to meet the workforce demand with highly trained, skilled, and experienced craftsmen and craftswomen. Our apprenticeship training efforts to put Nevadans back to work to build the infrastructure set forth in this bill have been ongoing. If there is a concern about a lack of qualified labor available, let me assure you that this spring our apprenticeship received nearly 2,000 applicants to fill roughly 100 electrical apprenticeship positions.

This bill also prioritizes that this work is done safely by ensuring contractors are certified in the Electric Vehicle Infrastructure Training Program (EVITP). Our contractors and workforce are trained in EVITP. In putting Nevadans back to work, I would note that IBEW Local 357 in southern Nevada values having a diverse workforce. Our workforce comprises diverse candidates. Math is not my strongest subject, but according to the most recent Equal Employment Opportunity Commission report, I came up with 42 percent of our membership being diverse. Our apprenticeship is even higher at a five-year average of 63 percent, which means we are heading in the right direction.

We are also proud to have a chapter of the IBEW Electrical Workers Minority Caucus in southern Nevada. It was organized to help advance our diversity and inclusion efforts in addition to providing a path within IBEW to seek leadership roles, which is highly encouraged. As we put Nevadans back to work, we are focusing on Nevadans. We urge your support of this bill, and thank you so much for your time.

Senator Brooks:

I would like to ask Mr. Johnston to join me at the table again to answer the hard questions.

Chair Monroe-Moreno:

We will start our questions with Assemblywoman Summers-Armstrong and then Assemblywoman Peters because I know they both have to leave.

Assemblywoman Summers-Armstrong:

I appreciate all this information. I actually stayed up and read this bill. It is a good bedtime story, but I actually stayed awake for most of it. I think this is a good bill, but I need some details. That is what is missing from my perspective.

In section 12 you have a clear definition of "historically underserved community," but in section 1, subsection 8, you are also talking about including them as users of the transportation network. I think we should also be looking at not only installing the energy outlets in the community, but also as owners of these vehicles. You mentioned earlier that inner-city communities often have high rates of asthma and other things. I know this; I have lived it; I live it every day.

In a recent article by Recurrent [recurrentauto.com], the cost of electric vehicles is going up, according to their May 2021 report. In the law, the definition of an electric vehicle is one that has either one or two batteries. It does not include hybrids. That means anyone who is trying to qualify as an electric vehicle would have to have a fully electric vehicle, and those are extremely expensive.

We just passed an Old Timers bill, which is helping us to cut down on emissions. We need an opportunity for folks in these communities to be able to own these vehicles, not just to have charging stations in the neighborhood. I would like you to speak about whether you would consider adding an option in the bill for there to be support—something that Assemblyman Watts is working on—to help folks afford vehicles as they are replacing Old Timers. Assemblyman Watts can speak deeply to that. Also, bring the banking community into this bill to offer low-interest loans. We are talking about underserved communities. Part of Ward 5 in Assembly District No. 6 has had a 15 percent unemployment rate for many years, so folks do not have a lot of money. I think it is extremely important that we not just speak about participation from underserved communities, but we open a pathway for that to be realized. It is not enough just to have a charging station in my neighborhood when I do not have a car. You are driving in my neighborhood to charge your car, but I do not have a car to charge. That is one of the things that is concerning to me.

The second thing is there is a lot of discussion about jobs, but there is also no specific plan for the folks who live in these underserved communities to participate in the jobs. The IBEW has a program, but I am concerned if we are going to have all this activity in these communities, the people who live in those communities should also be recruited and trained to participate. If there is a 12-year program, these are jobs that could get people out of poverty and get people on the road to self-sufficiency and to the middle class. If you are going to bring the infrastructure into my community, I would like to see a program that fully engages recruitment, training, and participation in the jobs.

Another thing that is of concern to me is community engagement meetings and only requiring one. I thought that was curious. We are talking about bringing a new technology and new ideas into a community that has been historically underserved, people do not know about all of this new-fangled stuff—and that is what the folks would say, "new-fangled stuff." We need to have more than one community engagement meeting. Section 14, subsection 3, states, "During the 9 months immediately before an electric utility files its first plan . . . at least one stakeholder engagement meeting . . ." I think more than one meeting would be advisable.

Another thing that is a concern to me is about what this means in these communities about power usage and the ability for the transmission lines to be upgraded so the system can hold and handle this increase in usage. I would like an answer to this question. In many of our underserved communities, the powerlines are above ground. If you are going to increase pull and usage, how is this going to affect the existing systems? Section 19 talks about "high-voltage transmission infrastructure," 345 kilovolts. If you have to increase the ability of current infrastructure to move electricity and you are increasing it to 345 kilovolts, and we have lines above ground, how does that affect the environment and the people who physically live in that area? I know sometimes there are issues with electricity and there has been discussion about that. Is that the right thing to do—increase the voltage in neighborhoods to that level? Can we increase our ability without endangering health for these communities? Again, we are talking about underserved communities to participate. You are talking about building vast infrastructure right in these neighborhoods. If you could speak to that, I would appreciate it.

My last concern is efficiency. I know in the past we have had weatherization programs, and I respect that those programs have been in place. However, those programs are a Band-Aid on a bullet wound. I believe just weatherizing windows and doors does not get to the core of the problem in underserved communities, which is old housing stock that was not built to be efficient. I know the U.S. Department of Energy has a program of whole-house weatherization which has to do more with not just windows and doors but also infrastructure, R-30 insulation in the ceilings, and other things.

What I am trying to say is I like the idea, but for a community like mine that has had promises made for many, many years, legislation for us has to be more than just a great idea. There have to be triggers and things in legislation that direct people to make real the

promises. Without those things, we often do not get anything. I would like there to be more details and direction in programming so those things really are actualized and not just great ideas.

I am sorry for the diatribe. I do have to go shortly. I really want to hear this. I want you to know I am excited, but it is the meat that is really important here.

Senator Brooks:

First of all, the definition of electric vehicle matches the definition of electric vehicle in statute and federal regulations for the U.S. Department of Transportation and how electric vehicles are defined and dealt with in all federal regulations as well as state law. This bill does not address incentives for electric vehicles. This bill does not address giving money to people to buy cars. That was not the purpose of the bill, and it does not address that. Although I support that, I just do not know the best methodology to pay for that.

To your earlier statement about the cost of electric vehicles going up, that is counter to every other data point I have collected in my research, and my personal experience as an electric vehicle owner. The cost of electric vehicles is continuously going down, and they are estimated to go down at an even faster rate than the cost of gasoline engines. However, I would love to see what data you are looking at in the article you were reading to expand my knowledge on this subject matter.

As far as expanding to hybrids, this is about charging and electrical systems. If it is a plug-in hybrid, which I used to have—a Ford Fusion plug-in hybrid—and I could plug it into the wall. The systems we are talking about on the electrical infrastructure charging would benefit that type of vehicle as well.

Getting to the job recruitment in more diverse communities, Ms. Mujica provided some statistics. I have worked in the workforce development arena, the apprenticeship program and IBEW as an example, and union labor programs my entire adult life. I started at the renewable energy training facility at the IBEW years ago. One of the most effective ways to guarantee a living wage and to guarantee equity among all the people in the workplace, in my opinion, is organized labor. Tying development to organized labor has always been, in my career, one of the best ways to create good, high-paying careers and help Nevadans get to and stay in the middle class.

Ms. Mujica works with the IBEW business owners as well as with the IBEW union, she mentioned the most recent class of apprentices that we take in, train up, and then put out into the workforce is 62 percent diverse. The current workforce in the local Nevada unions is over 40 percent. That is much higher than the average workforce and much higher than the average construction workforce. That is done by being very thoughtful and intentional on how we recruit and who we recruit in trying to make sure they get opportunities. I will say, background, gender, or race does not matter; they all make the same amount of money in

these collective bargaining agreements on these projects we are building out and that we are proposing to build out in this bill. I think that is the number one way to create and achieve some sort of equity in the workplace. That is why I am a huge supporter of organized labor when it comes to construction.

I was on the board of directors of Nevada Partners for years and worked with the BuildNV program where we were connecting folks from the traditionally and historically underserved communities to the building trades to create long-term pathways to middle class and to a safe and stable working environment. That has been a mission in my life, and hopefully this bill tries to achieve that.

Regarding the engagement meetings you brought up, it states a minimum of one per quarter. What we have seen in the past is that it is quite a bit more than that. Chair Monroe-Moreno and I have been part of some of the engagement meetings on other pieces of legislation that require the Public Utilities Commission of Nevada (PUCN) involvement. There are actually people on the phones who are in support of this bill who participate in those, as well as Mr. Johnston and other organizations. I think it will be far more robust than just one meeting per quarter. We have to put a minimum in the bill to make sure it takes place.

The above-ground powerlines and the high-voltage transmission are two separate issues. That is my fault for putting too much in one bill. However, the minimum of 345 kilovolt transmission lines in above-ground lines are exactly the same lines you see running all over the state now. We are just proposing to build a high-voltage bulk network around the state connecting those three parts of the state that are in your slides [page 6, [Exhibit C](#)]. That is not something that is in neighborhoods or in the core of our communities. These are long-distance, high-voltage overhead transmission lines we are proposing, like the ones we currently have, but we want to add to the system.

Regarding energy efficiency, I agree with you wholeheartedly that we need to have more energy efficiency. The folks who need it the most are the folks who have the least opportunities to do it. If people do not own their own home, there is not a great incentive or many opportunities for them to do lot of energy efficiency projects, like the windows, insulation, and new appliances—the things you addressed. However, there are programs, and the programs are largely through the utility, whether it be NV Energy or Southwest Gas Corporation. They are programs mandated by the state, but they offer things like rebates for energy efficient appliances. In some cases, they will take the old appliances away and put the new appliances in their place. Those are targeted in the historically underserved communities

We have programs in place now. What we are trying to do is double that. Whatever we have working right now, double that. Double the amount of money we are going to spend and target that into historically underserved communities. There is a long way we could go. I am here for the long haul. This is my third session. I make a little bit of progress every session, and I plan on being here for a few more. Doubling the amount we are putting into those programs I think is significant. However, you are right, it is still not enough. I will be back

next session to work on doubling it yet again. There are some folks behind me who do not want to hear that, but maybe you, Assemblywoman Summers-Armstrong, will work with me on it next session. I am incrementally trying to get it done. You are not wrong, and I agree with you wholeheartedly. We need more energy efficiency and we need it for the Nevadans who need it the most.

Assemblywoman Summers-Armstrong:

You did answer the question about the high-voltage lines, but could someone on your team talk about the capacity of the existing infrastructure and how it will handle these new things in the communities?

Senator Brooks:

Absolutely. I happen to be an electrician by training and an electrical contractor in my past, so I can actually speak with intelligence on this matter. I have also built transmission and distribution systems. If you look at the bill, it says "electrical vehicle charging infrastructure." That means a couple of different things. I think we all think of electric vehicle charging as something people drive up to and plug their car in. That is actually the easiest and cheapest part of the entire thing. Getting the electricity to that charger and having the infrastructure where it may not exist is really what the investment needs to be about.

I live in a 55-year-old house with rickety, overhead, 55-year-old lines. To put in an electric vehicle charging station at my own home, I had to upgrade the system. I had to put in a new main service and a new overhead drop and whatever that cost me. That is just because I live in an old neighborhood. This is the type of investment we are talking about. We are talking about making investments in the electrical infrastructure that serves the charging infrastructure in places where that investment needs to be made. That could be two things: it could be where the charging is going to take place or where the infrastructure needs to be upgraded to even allow the charging to take place. We are trying to address that, not so much in the first part of the bill with the \$100 million investment, but in the second part where we will have stakeholder engagement, conversations, and a long-term holistic planning process that involves the entire community. That is where I think most of that will be addressed.

This is a statement that I want to read that came from one of the charging industry folks. "This would also create opportunities for utilities to work with Nevada businesses to become part of this transition to electric vehicles." In this bill, we even talk about that. We could provide incentives that could be used to offset the cost of the charging stations through rebates. That could take place for a resident through grants or through utility upgrades, both on the utility system or assisting customers with upgrades on their property. These are the types of investments we envision some of this money being used for, not just buying a charging station, because that is the easiest part. It is making sure that the availability of the charging station exists for all Nevadans, or most Nevadans.

This could be used by leveraging both utility funding and private capital from third parties. This would have a bigger impact on the transition to electric vehicles than just the cost of the utility programs. We are talking about using the utility investment to leverage private capital to be able to provide other business models for providing charging to Nevadans. This will send an important signal to the market and create new opportunities for Nevada businesses, such as traditional fuelers and retails and hospitality providers. Can you imagine gas stations where you would fill up with gas, and you could also charge?

Investing in this will have private capital come into Nevada and invest in electric vehicle electrification, creating a more competitive market for electric vehicle charging services and providing that equipment and services. I promised a charging company business model that I would make sure I put on the record that there are other opportunities out there for Nevadans than just what is in this bill. It would leverage the private investment by making this investment today.

I do not disagree with a single thing you said. I wish we could do more. I am coming back, and I will keep trying.

Assemblywoman Peters:

Thank you for taking on this challenge. I know you have been building up to this for a couple of sessions now. This is an amazing feat you have pulled together here in less than 120 days. I love the direction of the bill. I love the investment and the infrastructure design, the inclusion of labor and communities. It has a really comprehensive and holistic look at what needs to happen in the state.

I have a few questions. I am going to start with easy ones first. You say, "zero carbon." Are you talking about zero-zero, or are you talking about net-zero?

Senator Brooks:

When we are talking about the integrated resource planning processes, I think the goal for all of us in this world is zero-zero. However, we get to diminishing returns when we get closer and closer to zero-zero. The goal is zero-zero. Technology does not currently allow us to do that affordably. I have been in the renewable energy business for 20 years. It looks so different than it did 20 years ago. I cannot even begin to imagine what it is going to look like 20 years from now. We cannot get there unless we set a goal and start walking in that direction. Zero-zero is the goal, but zero-zero is not currently something that is reasonable or feasible.

Assemblywoman Peters:

I like the goal because then it gets people thinking about how we do get there, and that innovation has a place to land. Can you talk about what it takes to join the Regional Transmission Organizations (RTOs), how we will reach that 2030 timeline, and what the in-between times will look like?

Senator Brooks:

Thank you for that question because we did not really talk about that much in the Senate bill hearing, and we have not talked about it here yet. It really is one of the most important parts of the bill to me. A regional market is so incredibly important for so many reasons. It has been identified in our interim study; it was one of the things that Chair Monroe-Moreno in the interim Legislative Committee on Energy brought forward as a statement and a priority. However, it requires interstate and interutility cooperation, and that is difficult.

Transmission is generally an interstate proposition. Right now, we are contemplating making an intrastate investment to facilitate an interstate expansion of transmission. It is kind of like, "Build it and they will come." It does not do any good unless we are talking in a regional manner. The only regional market in the West right now is the California Independent System Operator (ISO). The only non-California utility in all of the California ISO is in Nevada, which is the Valley Electric Association, Inc. They are a California ISO utility, but we need more options. I have gone to the California ISO and the California Legislature on multiple occasions and participate in conversations trying to move that forward.

What we are doing now is having a more holistic conversation in the West. Chair Monroe-Moreno and I went to Denver, Colorado, and talked to a really good group of western legislators, bipartisan, who really want to put something together for all the benefits we see this could bring to our economies. Senator Chris Hansen, from Colorado, who Chair Monroe-Moreno and I met with, has a companion bill to S.B. 448 (R2) that has much of the same language. It originated in the Colorado Senate and the bill is currently moving through the Colorado House of Representatives. We are kind of on parallel paths and texting each other late at night when we get off the floor and giving each other updates on where our bills are. We are both trying to force a conversation around regionalization, and we are both using the same phraseology, the same terminology, and the same timelines to try to bring it on one end in Colorado and on the other end in Nevada. We are trying to move this conversation forward by putting together a task force that has a diverse group of users, planners, and folks with ideas on how we can plan our transmission system in the state. It is really going to happen organically. We saw that with the energy imbalance market that NV Energy has entered into, which is putting the toe in the water of regionalization. It saved the ratepayers millions and millions of dollars by just entering into a short-term look at what regionalization could look like. However, we want to have a big conversation with all the states and California. Right now, California has the only regionalized, organized type of market in the West.

Assemblywoman Peters:

Is there a formal process for engaging in that, or do we establish our distribution system plan to connect regionally and from there we have established that regional relationship and become a member of the RTO?

Senator Brooks:

Mr. Johnston and I talk about this all the time. It is kind of all of the above. We start by building transmission lines. None of this means anything if we do not actually have the wires. You could say you are in a regional market, but if you do not have the wires in place, it does not really mean anything. We build transmission and then enter into agreements with neighboring states and then do things like the energy imbalance market or the day-ahead markets that are available and are happening on a utility-to-utility basis and utility-to-operator basis. All the while, we could be creating our own organization.

We say "join" or "create" in this bill because it could be something like Nevada creating a regional organization and then other states joining it, or we get together, talk to other states, and we collectively create an organization.

Director Bobzien had to leave, but he and the Western Governors' Association have bipartisan conversations across the western states. The Western Governors' Association and the heads of all of the offices of energy are having these conversations at the same time folks like me, Senator Chris Hansen, and Assemblyman Holden in California, are having the same conversations about how we work together on a legislative front to accommodate what could happen at the Executive Branch level and what is just naturally going to happen with businesses. We have to be able to facilitate that in order to get the benefits as a state. It is kind of all of the above. Mr. Johnston and I have fascinating conversations about this for hours at a time that I am sure would bore you all to death. Some of the folks sitting behind me and on Zoom do as well because we think this is not only the key to decarbonization, but also the key to our national security and our grid resiliency in the West.

Assemblywoman Peters:

My last question has to do with the number of plans that are mentioned in the bill designating that these plans have to be submitted. I assume, but I want to get on the record, that within those plans there will be a timeline with metrics, such as goals and objectives, that will be met to implement those plans. I am curious about your vision for how those will be implemented after the requirement of the plan is in place.

Senator Brooks:

There has been quite a bit of conversation with the PUCN on that piece. We tell a utility to go do something and we tell the PUCN to make sure they do it right, submit a plan, and make sure the ratepayer is protected through the whole process. Through this—as you are kind of in this industry as well—it is a very regimented process that has a lot of procedure and process built into it. That stuff takes time and resources. It does not happen overnight if it is to be done right. There was a lot of conversation and a lot of detail in the bill about those timelines—when the utility has to submit a plan, what time frame the PUCN has to approve or modify the plan, and then when the plan has to be implemented.

This is an aggressive timeline by utility planning standards. It is not an aggressive timeline for what I want to see happen tomorrow or what legislatures want to see happen, but it is definitely an aggressive timeline based upon utility planning standards. That took a little bit of help and cooperation by working with the utility and the PUCN through the drafting of this bill. It is going to take some resources. This bill has moved through the Senate Committee on Finance and resources were allocated. However, it really takes human resources and human capital at the PUCN and at the Governor's Office of Energy to really be able to move something like this forward. It will pay dividends for our state, but it does need human resources to meet those deadlines. There are environmental planning processes, permitting processes, and regulatory approval processes. All of this takes a lot of time.

Assemblyman Roberts:

I appreciate the bill and the notebook you provided. The bill provides a lot of things we need to move our energy economy forward, and I appreciate all the thought that went into it. I have one question about your amendment [Exhibit G] in section 8 regarding wages, which now includes contributions to pension plans made to a third-party administrator. I was looking at the original bill draft in section 8, subsection 1(d) (3) and (4). It talks about 110 percent of the average wage and 175 percent of the average wage. Is that typical language that is found in the *Nevada Revised Statutes*? Is it prevailing wage language? I am just curious if this is normal in the amendment because I have not seen it before.

Senator Brooks:

This is the type of language that would exist in abatement language, not necessarily prevailing wage language. This is not a prevailing wage; this is based on abatement. We see this a lot, although this is, in my opinion, the most effective and best abatement statute that we have. It says if you lease land from the federal government, you then have to pay property tax on that land because you built a power plant or a transmission line on it and have built all this equipment on the land with a billion dollars worth of solar panels. If you come to our state and invest in this public land and lease it from the federal government, we will allow you to get a tax abatement. Part of the taxes on what otherwise would be untaxable property, we are going to abate part of that for a period of time. In return for that abatement, you must pay X, Y, and Z.

The language has gone back and forth over the years. I tried to fix it last session and I broke it. I did not make it better, I made it worse. The industry came back and told me the thing I tried to fix, I made worse. This is an attempt to fix that issue. It was brought to my attention by the companies that do these projects. What we are doing here is adjusting what is included in that wage. It used to be everything was under the cap and then I moved everything over the cap, and now we are putting some of it back under the cap. This is me trying to right a wrong I did last session, which was trying to right a wrong that I think I did the session before that.

Assemblyman Roberts:

I appreciate the answer. It is a great bill.

Assemblyman Leavitt:

The unfortunate issue about giving us a packet with this much detail is it is easier for us to pick it apart. My question is more toward the regulatory section, section 35, which states, "there is no presumption that any recorded expenses, investments or other costs included in the application were prudently incurred The public utility has the burden of proving that an expense, investment or cost was reasonably and prudently incurred."

To me, that seems like guilty until proven innocent. That is legal jargon being used and it is not really following legal precedent in the way it is worded. When the utility is submitting an application or trying to prove their reasonableness and prudence, what kind of support do they have to provide? Do they have to provide witness support statements? What is required of them to prove their innocence?

Senator Brooks:

This is actually language that currently exists, and it is actually how certain rate cases are handled for the electric utility. What we are doing here is saying that through a piece of legislation, we are making the utility go out and make an investment. If the utility is going to make that investment and recover those costs—and we define how they recover their costs in the bill—they must do it in such a manner that they have to prove the investment made was prudent. We can say go build a line from A to B and it costs a billion dollars—and it does—but we want to make sure they are doing that at the lowest cost they possibly can based on the parameters we gave them. Yes, the responsibility lies on them to prove the prudence of their investment.

That is currently how it is in most of the ratemaking for the electric utility. We just want to make sure it is incredibly clear moving forward. If we are saying as a policy statement for the utility to invest in these things and we all collectively—transmission users, utilities, big data centers, mines, average ratepayers like everyone in this room—pay it back over decades, I want to make sure that is done in the absolute lowest-cost manner possible to protect the ratepayers. That is what this language does.

That terminology exists in ratemaking and exists already. We just want to make sure that, moving forward, the investment that the electric utility makes on transmission is defined and the responsibility to prove the prudence of that investment does lie on them. When you ask about what testimony, it is in a rate case and it is in a proceeding. There are several smart energy attorneys sitting behind me and one sitting next to me who could talk to you for hours about it. That is what the entire PUCN does. There are interveners, large ratepayers, and utilities. We just want to make sure if we are ordering the utility to spend literally billions of dollars over decades, we are making sure they are doing it in the most cost-effective manner possible. This language helps to achieve that, in my opinion.

Assemblyman Leavitt:

When we are talking about this provision, and if it is already being done, what would be the reason behind even putting a provision of that nature in the bill. If it is already being done and is general practice and is already being accomplished, what would be the reason behind even including it at all?

Senator Brooks:

We want to guarantee that there is no ambiguity moving forward with the electric utility on how they are going to recover these costs. The responsibility is going to be on them to prove the prudence of the investments they make to meet these goals. It is basically a compact between the state, the utility, and the regulator. We tell them to do a thing, they do a thing; they invest billions of dollars of their own capital—they bring in private capital from out of state—and make that investment in our state. For that, we allow a recovery of that cost with a profit. However, in return, we need to make sure they made the absolute best investment possible on behalf of the ratepayer and the taxpayer. We feel this language gives us some comfort that when they go through the regulatory processes, this is the guiding principle.

Assemblyman Leavitt:

Have there been issues in the past where the need is there?

Senator Brooks:

Yes. There is an entire fleet of attorneys who make a good living at working in front of the PUCN representing the largest ratepayers and representing the largest utilities. It is a thing. I have a lot of good friends whom I respect on both sides of that argument. If we are going to make a private company, through a piece of policy, make a multi-billion-dollar investment, two things should happen. They should be able to get a legitimate and reasonable return on that investment, and we should make sure they make the most prudent investment possible on behalf of the state of Nevada. This language tries to achieve that. It does not undermine any current court cases by any other utility, if that is the question you wanted to ask.

Assemblyman Ellison:

You talked about public land abatement. The Payments in Lieu of Taxes (PILT) program is available for those areas and the PILT helps cover the loss and tax bases. I hope that is something you take into consideration because that is going to be a loss to the county for infrastructure. That is a big deal.

Senator Brooks:

The abated part is the state's portion of the property tax. The local property tax all goes to the local county where these projects take place. It is a net benefit to the county and to the state. The majority of the benefit goes directly to the county because it is turned into local property tax.

Assemblyman Ellison:

How long do you think it will take to get this up and moving to where people are actually on the ground and doing projects?

Senator Brooks:

There is a two-part answer to that question. It starts with submitting a plan and upon passage and approval, there would be a certain time frame, which is defined in the bill, to submit a plan, which I think is 90 days. They have an expedited review period at the PUCN to have plans approved, and then the utility would start spending money immediately on the electric charging infrastructure. NV Energy is already spending tens if not hundreds of millions of dollars on transmission, which has already been approved by the PUCN, on some of the stuff we are ordering in this legislation, such as permitting issues, environmental siting, acquisition, and things like that. The money is already being spent. We also think the massive transmission build-out will take place in the next six years. It just takes a long time to do these things.

The most important component of this bill is that transmission build-out. That transmission build-out would facilitate a minimum of \$6 billion of investment in our state on renewable energy projects in these pre-designated zones [page 5, Exhibit C]. The second something like this is announced, the land acquisition starts taking place, the interconnection agreement starts, substations are planned to be built. The second this gets approval, the other money—money that is not even part of the economic benefit of this line—billions and billions of dollars and the tens of thousands of jobs come with that, starts the day this gets approved. They are already chomping at the bit and looking at ways to get into Nevada so they can be part of this new energy economy.

I would say, immediately. Some of it is already being spent today without this bill even being passed yet because some of these processes are already ongoing.

Assemblyman Ellison:

I appreciate that. That is what it is going to take—getting boots on the ground and getting things moving. I think we have one of the best apprenticeship programs in the country here in Nevada. The problem is, it takes a while to get that many people and get them trained. I own several businesses, and the biggest problem I see is workforce. I know there are apprenticeship programs out there, but unless the government steps up and tells people they have to get back to work, I do not know how they are going to do this. I know Mr. Brown could probably answer some of these questions. We have to do something as a state to get these people away from the TV and back in the workforce. I know that sounds cruel, but there are no people to hire. You cannot find laborers or qualified people. We are having a big problem throughout the entire state, not only in Las Vegas, but also in the rurals. It is hard to find a workforce.

I am hoping the Office of the Governor has a plan to move forward to try to get these people back to work. That is also what is going to stimulate the economy. These are great jobs to get people to work, but we have to get them. I know the unions are boosting up the apprenticeship programs and other things, but we still have to have people now who are going to be doing this.

NV Energy should already have the right, based on their system, to build their grid. All they have to do is get approval from the PUCN in some of these areas. Right now, they could be moving. They have more power than most of these people as far as moving some of the transmission lines out there now. Is that not true?

Senator Brooks:

That is correct. If you look at the bright red line on this slide [page 5, Exhibit C], that is already existing. If you look at the western piece, NV Energy already has approval to do that. This bill allows for some of the expansions, like tying from the west across central Nevada. This creates the framework for the New Energy Industry Task Force, but it allows for some substation build-out along the way, connecting to loads, and things like that. You are absolutely right. They are already working on the Greenlink West piece of this and it is something that has already been approved by the PUCN. This augments that, making it into a more comprehensive plan to look at the whole region of Nevada and how we tie it all together and open all these opportunities instead of a little bit here and a little bit there based upon the way the planning processes currently work.

To talk about the wages and creating this need, you heard Ms. Mujica talk about opening an opportunity for a class of 100 electrical workers and having over 2,000 applicants. We have the certainty that there are going to be thousands of jobs out there, then we can just ramp up the apprenticeship programs across the entire state, open these classes, and start recruiting folks. There are programs I used to work on at Nevada Partners, Inc., for instance, where we went into historically underserved communities and tried to connect opportunities from those folks to the apprenticeship program. What hurdles are in the way? Is it one year of algebra you need? Is it child care you need? Is it a GED you need? How do we connect that person with that career opportunity through apprenticeship? We are working with the College of Southern Nevada and organizations like Nevada Partners, workforce organizations in the state, and the Department of Employment, Training and Rehabilitation, to try to create all of those pathways to get folks there.

We say if you are going to get these tax abatements—and these tax abatements make it worthwhile to come to our state and invest billions of dollars in capital—you must pay 175 percent of the average statewide hourly wage. That is a good wage and that will motivate people to get into those jobs, work themselves through those apprenticeship programs, and get into those trades. This is a ten-year plan, but it starts tomorrow.

Assemblyman Ellison:

The last question I have is regarding the rural transportation. In Clark County, there is a great transportation system. You should be able to work through a lot of these problems pretty easily. Is that correct?

Senator Brooks:

We are blessed with being such a new town and having new infrastructure in southern Nevada. Believe it or not, Nevada is one of the most urban states in the entire United States. We are sitting here in historic Carson City, having driven through 500 miles of beautiful mountains and desert to get here, but the fact of the matter is about 85 percent of our state lives in two little valleys. We are very well-suited for the electrification of transportation.

Hopefully, in this infrastructure world that we live in over the next few years, we address public transportation in those two valleys as well. What this bill wants is the electrification of our existing transportation networks, including personal vehicles. Yes, we are very fortunate to have good roads in this state, and definitely in southern Nevada because it is such a new community.

Assemblyman Miller:

I am excited about Nevada being a regional energy hub. I have a question for a point of clarity regarding section 36, subsection 10. This is if someone has a multiunit property in an apartment community or something similar, the owners or operators would not operate as a public utility and would not be able to charge for the power that is generated through those systems.

Senator Brooks:

That is correct.

Assemblyman Miller:

Does that also apply to individually owned property? If it is a single-family residence that has rooftop solar, would they not be able to charge for generated power?

Senator Brooks:

That is correct. Basically, we have net metering laws here in the state that look at the individual power users behind the meter. What this bill does is—and I will use my grandma as an example—if there is one meter, they pay one power bill, but they have 100 units. All things are included in my grandma's rent. It is subsidized senior housing in North Las Vegas. She pays rent to her landlord and with that comes electricity, water, heat, and the rent for her house. We are saying that is the same as your putting solar on your roof. One meter, one customer, one bill from NV Energy. It does not matter how many folks live there. That is what we are trying to define in that part of the legislation.

Assemblyman Miller:

It says they are individually metered. In the scenario you described, there is one bill for the entire property. However, if there are multiple units and each unit has its own meter, then it does not fit into this. Is that correct?

Senator Brooks:

That is correct. This bill does not address that. In that scenario, each individual person has their own meter and their own account with the electric utility. They do not own the roof. If you think about it logistically and how you would accomplish that, it does not really lend itself to this type of cogeneration.

Assemblyman Miller:

I wanted some clarity on that because I am somewhat familiar with people having rooftop and the landlord creating a different bill for that service.

Senator Brooks:

That is currently something that is not allowed in the state. It is not necessarily something I support being allowed in the state because I think there is a lot of opportunity for mischief in that business model.

Assemblyman Miller:

Thank you. I just wanted that clarity between the units and how it is defined.

Assemblywoman Brown-May:

I very much like this bill, and I appreciate your amendment. First, I would like to go back to my colleague's question relative to section 35. I had an opportunity to learn a little bit about public utilities in general serving on this Committee throughout the course of this session, and I really enjoyed that opportunity. It is my understanding from other presentations we have received that public utilities, when they are going to develop infrastructure such as a big project like this, the utility itself would present the plan to the PUCN. Then it would go out for a public hearing for feedback and commentary before it is approved. We would then believe at that point that all of those expenses in that plan have been vetted and approved. Is that true?

Senator Brooks:

Not necessarily, but Mr. Johnston would be able to answer that far better than I could.

Bob Johnston, Policy Advisor, Nevada State Democratic Caucus:

It is actually a two-step process in Nevada and dates back to the early 1980s when Nevada adopted what is called integrated resource planning. What that did was bring the PUCN into big management decisions by the utility. Before that, the utility would make a decision, accomplish the act, then it would go to the PUCN for the first time for detailed review after the fact. By then, the deed was done and they would get after-the-fact disallowance expenses.

With resource planning, which has been around in Nevada for nearly 40 years now, the PUCN is brought in on the front end. The utility goes to the PUCN with its triennial integrated resource plan and requests approval under the three-year action plan that takes certain acts on the supply side or demand side. Once the plan is approved, those actions are deemed prudent. That is step one.

In step two, the utility has to build the transmission line and implement the energy efficiency programs. Cost recovery happens, for most costs, in a general rate case. The utility builds a substation, then they want to roll the cost into rates. They have to prove to the PUCN that the action, which has already been deemed prudent, was implemented in a prudent and reasonable fashion. That is how the process works.

Assemblywoman Brown-May:

I believe I heard Mr. Potts say there is a \$1.44 return on every \$1 invested. I just want to make sure I heard that clearly: For every \$1, we get \$1.44 in return.

Senator Brooks:

That is correct, Mr. Potts did say that. He was referring specifically to the transmission line investment. There are leveraging investments that we are not even talking about. That does not include the industries it could draw or the renewable energy generators that might hook up to it.

Assemblywoman Brown-May:

Recognizing we are not a money committee but a policy committee, I thought that was really important to clarify.

Senator Brooks:

The primary motivation of the bill is to bring more revenue into the state.

Assemblyman Wheeler:

My question is about the abatements. Are the abatements on public lands going to affect our PILT payments? As we know, that is counting up the amount of land you have versus the amount of land you use.

Senator Brooks:

Assemblyman Ellison asked the same question regarding that. I am not exactly sure how that affects the PILT. What this does do is it takes the otherwise federal lands, and the private developer enters into a lease with the federal government, usually the Bureau of Land Management, Department of the Interior. Now, based on the taxable value of that land, all the property tax goes straight to the county in which the project takes place. You are converting, although you are not looking at the loss calculation. You are converting otherwise untaxable land into actual taxes. While it is abated, it is the state's share that is abated.

Assemblyman Watts:

Thank you for the thorough presentation of a thorough bill. First, I would like to put a quick comment on the record. I support and appreciate a lot of the work that has been done in terms of incorporating equity into this bill and into policies in general. It was not very long ago, before I arrived in this body, when we were making sure there was 5 percent of programs going to low-income communities. I agree with you, and I look forward to working with you to continue to increase that. I would like to see a larger figure as well, but

I appreciate we are continuing to expand our commitment to assist the communities that need it the most and can really benefit the most in economics, health, comfort, and a lot of other ways by prioritizing some of these investments, whether it is in energy efficiency or transportation electrification. Having worked on some of this stuff before, we have seen when we do not build those things into policies, sometimes it does not get distributed in the way needed to address some of those issues. I just wanted to make sure I put my appreciation on the record for your work in making sure we are building that into our policies moving forward.

One question I do want to ask is around the transportation electrification. There are two pieces that I see in the bill. There is a short-term defined investment to scale up some of this infrastructure. Then there is an ongoing planning process to continue to build out and maintain that. Could you talk a little bit about how those pieces interact and work together toward achieving our transportation electrification plans, specifically the transition from the short-term plan to the longer-term planning process?

Senator Brooks:

I will start with the conversations around equity and how we look at Nevadans and who benefits from what. It is not a new conversation, but it has really matured in the last couple of years. In the last three sessions, the most significant improvement in that process for me has been in the work that was done over the summer. I was having conversations with many people on this Committee about this exact bill over a year ago. You have to pick the right time. In that process, the most significant improvement and progress that was made was coming up with definitions for historically underserved communities but with data to back it up. It is hard to say, I want to help everyone or I want to do X, Y, and Z.

We put words on paper in this building and those words turn into laws that turn into actual actions. Using words that will actually turn into actions is sometimes the hardest thing to do. I am so grateful for the team I worked with, yourself included, Chispa Nevada, the whole National Resources Defense Council team, and Western Resource Advocates, that helped me get to a place where we now have words on paper that will hopefully achieve those goals.

That being said, it is definitely two parts, but they do complement each other. The first is the targeted investments in certain sectors. We know it is not going to be enough, and we know it is not going to satisfy the needs of any one of those sectors. That first investment will be a learning experience for us as we go into that second planning process. That coupled with community engagement of what the need is and what we put out there, we will see what gets utilized. None of this is good for anyone if it does not get used. Just putting up a charging station somewhere because some guy like me thought he was going to do the right thing for the right people does not do anyone a bit of good. The only way these things really benefit all of us, including folks who do not have electric vehicles, all ratepayers, is by getting the absolute highest level of usage. That should be our primary consideration.

How do we do that and how do we help communities that need the help the most? How do we create opportunities for communities that need the opportunities the most? We are going to learn that through the first piece, I think. That will inform the long-term planning process, which is the second piece.

Assemblyman Watts:

To clarify, we are going to make this investment and that will give us enough information from the projects that we will be seeding. We can then step back and evaluate to figure out which things are working well, and which things are not. Moving forward, we continue to make investments using that knowledge to make sure they are getting high utilization, which also helps ensure the ratepayers are being protected because high utilization means we are actually bringing in a return on the use of that infrastructure to make sure it does not put additional cost on the ratepayers. Is that how you see it going?

Senator Brooks:

That is exactly how I see it going. We know what we think we want to achieve, but we do not always know exactly how to do that. There are some really smart people, both at the utility and at the PUCN, who look at these things. They are using traffic data, where people are, and things like that. They are far smarter than I am on where they should site these. We will definitely get a learning experience from that first investment to inform how we make our next investments through a long-term planning process.

Assemblyman Watts:

My last question is around federal funding. In the transmission portion of the bill, I saw a reference about trying to utilize federal funding where possible. Obviously, there is a lot of conversation about federal resources in this building and in general. I am wondering if you could speak to that. Also, knowing there is the transportation electrification and other aspects, what are the opportunities that we have to utilize potential federal infrastructure funds to support the programs that are envisioned within the bill?

Senator Brooks:

It goes without saying that if federal funds become available, they need to go to this, but we felt we wanted to say it anyway. There is precedent for this. I can see the Biden Administration and this Congress saying they want to encourage transmission. The way they want to encourage it is not necessarily to write checks to transmission companies, but they could say the 26 percent investment tax credit that currently exists for renewable energy assets can be applied to transmission lines. That is actually a bill moving through Congress right now. If you were to apply that, all of a sudden, the capital expenditure on this whole project in front of you just went down 26 percent. Not exactly 26 percent, but the 26 percent tax value would be applied to this project. We wanted to make sure that was something we were directing the utility to do.

There is precedent for it. If you recall, early in the Trump Administration, there was a large corporate tax cut that took place. That affected the local utilities in our state. The PUCN said here is the tax cut, you got x amount of dollars for it, give that to the ratepayer. That is the kind of thing we are trying to direct. If federal funds became available, they are to the benefit of the ratepayer.

Assemblyman Watts:

I appreciate that. I want to thank you for all the work you have put in on this. I appreciate the data-based definitions. I have actually borrowed from them for a piece of legislation that my colleague referenced in relation to taking on smog and vehicle pollution. There is a bill that tries to provide assistance to folks in being able to obtain vehicles. I think it will complement the investments in infrastructure that are contemplated within this bill.

Chair Monroe-Moreno:

There are only two things I want to address that have not been asked. When you look at section 36, subsection 10, on the net metering, I did not see anything in there that says the energy savings the owner receives with rooftop solar would be passed onto the tenants. Why did you not include that? The owner will get a tremendous savings, but there is nothing being passed onto the grandmas who are their tenants.

Senator Brooks:

Mr. Johnston and I had a debate about this. It comes down to the housing market dictating what the cost of that unit is going to be. In a lot of these particular business models, it is subsidized low-income and senior housing. There is a certain amount of competition. They are getting U.S. Department of Housing and Urban Development credits, federal credits, sometimes new markets tax credits, and all kinds of different stacks of benefits and tax credits to try to drive the cost down because these are generally subsidized housing. At the end of the day, we are just trying to help the property owners lower their operating expense.

I do not know how we would necessarily dictate or even true up what those savings are and how they get passed onto the tenants in this particular case. It seems like it is implied, but it is almost impossible to prove what the benefit is and how it gets passed on and to what measure. I guess you could just say, "To the extent there is a benefit, pass it on to the tenant." However, we ran into a lot of obstacles in trying to come up with a way to say that. Does that make sense? To me, it is just implied. If there are lower operating expenses and you are in a market competing with other providers of low-income housing, it is just going to help you provide better low-income housing.

Chair Monroe-Moreno:

I hope the owners feel the same way you do, but we know there are a lot of property owners who may not have the same heart for their tenants that you do.

Senator Brooks:

This does not incentivize it. It does not say there is an incentive or "you must," it just says from a regulator standpoint, you are viewed as if you are one customer behind one meter. That is all it does. It facilitates the decision of the property owner to do that or not do that if they would like to. It would be like putting in high-efficiency air conditioning units. How would we say if someone puts in a more efficient air conditioning unit, you must pass on the value or savings to your tenants? It is just an energy-efficiency measure. We are just now, through this, making it clear that it is allowed to do.

Chair Monroe-Moreno:

In the last legislative session, we were able to pass Assembly Bill 465 of the 80th Session, the expanded solar access program. Do you feel anything in this legislation would be in conflict with that?

Senator Brooks:

Absolutely not. As a matter of fact, I think there might be things, especially around the continual evolution of workforce development, that legislation has paved the way for and this would complement.

Chair Monroe-Moreno:

I know there was a comment earlier that there is a lot in this bill that came in 120 days. I think we have heard through questions and testimony that this work has been in the process for more than a year. Thank you for the work. For those of us who worked on this bill with you, we did not always agree, but I think we came to a pretty good bill.

Seeing no other questions from the Committee, I will open the hearing for testimony in support. I want to preface that some members may have to leave to go to another committee. Please do not think they are not interested in the content, but we do have other committees going on.

Senator Brooks:

On Zoom, there are a handful of folks who wanted to present in support of the bill and were not able to make it because of our hectic legislative session schedule in the Senate hearing. I do not know if you could go to them as well.

Chair Monroe-Moreno:

We will go to those who are here in the room first, then we will go to Zoom.

Danny Thompson, representing International Brotherhood of Electrical Workers, Local 1245 and Local 396:

These are the workers who will construct the Greenlink. These jobs are not for everyone. If you are afraid of heights, you cannot do these jobs. If you are afraid of electricity, you cannot do these jobs. The workers are highly trained and they served a four-year apprenticeship. We are excited about opening the apprenticeship program to more apprentices that we will train to do this work. It is not just those 4,000 jobs you are talking

about. If you look at the map closely [page 6, Exhibit C], the benefit to rural Nevada cannot be understated. All of those zones that are identified on that map are potential renewable generation sites. That is another thing Nevada has. We have a lot of gold mines. If you look at a map of America, that is the best you are going to get when you look at solar opportunities and renewable generation. This is an exciting, new opportunity.

I first met Senator Brooks 21 years ago when he was just out of the apprenticeship program. He was promoting solar then. He did not just start doing this when he got to the Legislature, he has done this his whole life. We want to thank him for introducing this bill and urge you to support it.

Matthew Griffin, representing Switch:

Switch is a global technology infrastructure corporation and has been named in the top ten of leading global companies for its investment in utilizing solar energy by the Solar Energy Industries Association. We have been powered by 100 percent renewable energy since 2016, and in the next coming years we will be powered by Rob Roy's Gigawatt 1.

I am here today on behalf of Switch to offer our strong support for S.B. 448 (R2), as it represents Nevada's ongoing commitment to making Nevada a renewable energy leader regionally and nationally. Nevada needs more transmission infrastructure for renewable energy and more storage to meet our sustainable energy goals and to become a key regional player in the clean energy future.

We encourage regulators to embrace innovation, explore ways to reduce costs for all ratepayers, and we specifically thank the sponsor and everyone who has worked on this bill for bringing it, and we urge your support today.

Dan Musgrove, representing Southern Nevada Building Trades Unions:

Much has been said already about how important this is. Mr. Brown talked about three simple words. Those three simple words were actually used in 1980 in talking about getting out of a recession by a Presidential candidate: jobs, jobs, jobs. Let us talk about getting out of a pandemic as well.

This is important legislation. When you look at that map [page 6, Exhibit C], those projects will not come if we cannot get the electricity to the grid, and the men and women of the building trades—who are a very diverse group of men and women—would love to have the opportunity to get those projects on the ground and get electricity and green energy into the grid. We support the bill.

Chair Monroe-Moreno:

For those in the overflow room, if you are planning on testifying, please come over to this room and hang out in the hallway if you do not see a chair in the room.

Susan Fisher, representing Ovation Development Corporation; Cyrq Energy; and Able Grid Energy Solutions:

Cyrq Energy is a geothermal company with operations here in Nevada. We are very excited about having additional transmission supply because, as you know, you can put solar in certain places, but geothermal is where it is. It will be nice to have access to additional transmission.

Able Grid Energy Solutions is an energy storage company. We are agnostic on the type of energy that goes into it. We are very excited about having additional opportunities there.

Alan Molasky with Ovation Development Corporation was not able to be here today to speak. He asked me to put some comments on the record. I am not going to read all of his comments into the record, just a few. He is the CEO and founder of Ovation Development. Ovation has built and managed over 8,000 apartment homes in southern Nevada, and they have about another 2,000 homes in the works right now. In addition to their market-rate communities, they are one of Nevada's major providers of senior affordable housing, as you heard from Senator Brooks.

I will also add on the tenant solar, which is what I refer to as the solar on apartment, we have been working with Senator Brooks on this for over four years now. This is not something we just decided to toss out here. We have gone through several iterations of language. It is also broad enough so it will apply to commercial properties as well, like a strip mall or a commercial building.

The Molasky family have been advocates of renewable energy since 1979, which is the year Alan Molasky built three passive solar homes, the first ever built in the country. His father, Irwin Molasky, has been recognized by the U.S. Green Building Council for a lifetime achievement for his many buildings that have obtained gold standards.

We are very much in support of Senate Bill 448 (2nd Reprint), which will allow the owners of multifamily properties to install renewable energy systems.

Mackenzie Warren, representing Nevada State Apartment Association:

Madam Chair, to address your question directly about section 36, we are here in support because we plan on passing on the savings to our tenants. I got a quick yes. We are 162,000 units and 67 percent of all multifamily. Innovation Properties Group is one of our largest members and it is their intention to implement this in their senior living. Using the example of Senator Brooks' grandmother in North Las Vegas, that is the intent of Innovation. Anytime we can stabilize operating costs, we are going to stabilize rents. Apartment communities are large power users. We use power to keep the lights on in the parking lots, community spaces, hallways, the pool, and the gym.

Anecdotally, I think apartment shopping looks different. I think these days, folks are looking for greener, more sustainable living options. Those living in apartments should have access to those greener, more sustainable options. We are happy to support this bill.

Tom Polikalas, representing Western States Hydrogen Alliance:

Western States Hydrogen Alliance is a trade association comprising some of the national and international leaders in deploying hydrogen fuel cell and related technologies. The Western States Hydrogen Alliance finds this is a bill that is very complementary with the development of hydrogen technologies. Senator Brooks alluded to some of those, particularly in the storage of energy. Hydrogen has been identified by the National Renewable Energy Laboratory as perhaps the ideal long-term storage option. We are also pleased to see that NV Energy and other stakeholders are beginning to look at hydrogen technologies, which represent another huge economic opportunity in the clean energy space.

Thank you for your time and indulgence. We are pleased to support S.B. 448 (R2).

Baird Fogel, representing Haas Automation, Inc.:

I am here on behalf of Haas Automation, Inc., in support of S.B. 448 (R2), specifically sections 45 to 47 of the Economic Development Electric Rate Rider Program (EDRR). As many of you may not know, Haas is a machine tooling and manufacturing company that is planning to build a manufacturing facility in Nevada that will provide around 2,000 high-paying, skilled labor jobs that are deemed essential and, therefore, pandemic-proof.

The provisions of sections 45 to 47, which extend the EDRR to 2024, are a key component in the company's consideration in making southern Nevada a new manufacturing hub for the company. We look forward to working with local and state officials as we continue to develop our plans. We thank you all for your consideration of this important legislation.

Chair Monroe-Moreno:

Is there anyone waiting to testify in support on Zoom?

Sarah Steinberg, Principal, Advanced Energy Economy:

Advanced Energy Economy is an industry association comprising businesses dedicated to making the energy we use secure, clean, resilient, and affordable. We also manage the Advanced Energy Buyers Group, which represents the interests of large electricity consumers interested in meeting clean energy goals.

I appreciate the opportunity to be before you today to support S.B. 448 (R2) and the provisions that move Nevada toward participation in the Western wholesale energy market, also known as an RTO, a regional transmission organization. We thank Senator Brooks for bringing this bill forward.

A western RTO should be a priority for all states that have committed to ambitious clean energy goals and want to achieve those goals in an efficient, cost-effective, and reliable way. This bill will position Nevada as a leader and gives the state a prominent voice in the design of the market to ensure maximum economic gains flow to the state.

An RTO offers many benefits; most importantly, it will lower future energy costs for all ratepayers and lower the energy burden of customers for whom electricity is a significant monthly expense. It does so by harnessing competitive forces and creating a platform to share excess low-cost resources, often renewables like solar and geothermal, around the region. This sharing displaces higher costs and dirtier resources and allows for more affordable renewables to come online. It also coordinates infrastructure planning and more efficiently uses existing infrastructure.

Other benefits include increased grid resilience if Nevada's powerplants face unexpected weather, like we saw in Texas. The state can import energy to continue serving its customers. An RTO will facilitate the development of new transmission lines, solar, wind, and geothermal resources in Nevada, adding to the state's tax base and creating good paying jobs.

Finally, large energy users and data centers are increasingly looking to expand into states that give them access to low-cost, reliable, and clean electricity. These companies prefer locations within an RTO, which enable more renewable and affordable purchasing options to power their operations. Senate Bill 448 (2nd Reprint) makes Nevada an attractive destination for these large employers. There is no time like the present to start planning for the grid of the future, and S.B. 448 (R2) sets the state up for success for decades to come. [Exhibit H and Exhibit I were also submitted.]

Carolyn Turner, Executive Director, Nevada Rural Electric Association:

The Nevada Rural Electric Association (NREA) is here today in support of S.B. 448 (R2), and we would like to thank Senator Brooks for all of his work on this bill. The NREA represents the collected interests of ten consumer-owned utilities throughout the state of Nevada which are democratically governed and operated on a not-for-profit basis. Each utility is motivated first and foremost to provide safe, reliable, and affordable electric services to the communities it serves.

Local governance has resulted in the deployment of innovative solutions by consumer-owned utilities, such as community solar programs, the expansion of electric vehicle charging infrastructure, partnership with the Governor's Office of Energy, and early adoption of low-carbon energy resources.

Consumer-owned utilities have a vested interest in a robust transmission network that supports the economic development goals and vitality of all Nevada communities, both rural and urban. The NREA members acquire and deliver electricity independently; however, the majority of our members receive transmission services from NV Energy. As demand on the energy system has grown in our state, congestion has occurred within the confines of existing infrastructure. It is critical that future projects address these capacity limitations and prioritize the needs of native load within our state.

In addition to investment in physical infrastructure, S.B. 448 (R2) contemplates the formation of an organized energy market in the West over the next decade. The NREA takes no position on any particular market construct at this time, however, we are very supportive of the establishment of the Regional Transmission Coordination Task Force envisioned in section 31 of the bill.

The NREA would further like to thank Senator Brooks for including a representative of the consumer-owned utility industry on the Task Force in recognition of the unique perspective we offer. Our association looks forward to working collaboratively with other stakeholders to ensure that participation in an organized market is with the best interest of all Nevadans in mind.

Rudy Zamora, Program Director, Chispa Nevada:

Chispa Nevada is an organizing program dedicated to building the power of Latinx communities to have a say in decisions that affect our environment. We had a larger presentation, but due to time, we are going to shorten it. We helped Senator Brooks come up with the historically underserved communities, and we have submitted an exhibit on how those maps would lay out and what those categories are [Exhibit J].

Overall, we are here to support S.B. 448 (R2), especially section 12, which includes language to ensure that at least 40 percent of the funding investments in electric transportation infrastructure reach our historically underserved Nevadans who mostly need the benefits of zero-emission transportation.

Due to decades of environmental injustices, low-income, Black, Indigenous, and people of color in Nevada have been more exposed to air pollution, breathing dirtier air that harms our health and raises financial costs. Low-income people of color especially are more likely to live near major sources of pollution, like interstates and highways. Investing in zero-emission transportation can go a long way to address disproportionately shared pollution.

Our community wants to see these investments in electric vehicle charging infrastructure being made in neighborhoods and in the modes of transportation that we most use; not only electrifying personal vehicles, but also school buses, transit buses, and vehicles used for car sharing. This, as well as well-funded public transit, can clean up the air and reduce the number one source of [unintelligible] in the transportation sector.

We would also like to express our support for requiring 10 percent of energy efficiency plan expenditures be spent in the low-income households and support historically underserved communities. Despite using less energy, low-income households or people of color are spending higher portions of their income paying energy bills. Energy-efficiency programs must be targeted and marketed to our communities. This is the first step to ensure we reduce energy costs for low-income families and people of color in Nevada. [A letter was also submitted, Exhibit K].

Chair Monroe-Moreno:

There is no one else on Zoom to provide testimony in support. Since we are on Zoom, I am going to stay there to open testimony in opposition. Is there anyone joining us on Zoom to testify in opposition? [There was no one.] Is there anyone here in the room who would like to provide testimony in opposition? [There was no one.] Is there anyone here in the room who would like to provide neutral testimony?

Laura Granier, representing Nevada Resort Association:

I would like to thank Senator Brooks for his work on this bill and acknowledge his efforts to advance renewable energy development and job creation. Nevada's resort industry is a world class leader in sustainability, environmental protection, and clean energy development. The members of the Nevada Resort Association (NRA) are committed to identifying and implementing solutions to reduce greenhouse gases and carbon emissions and promote energy and water conservation.

For instance, MGM Resorts recently built America's largest, continuous rooftop solar array at the Mandalay Bay Convention Center, one of many examples of leadership from an NRA member on sustainability and renewable energy issues. We have worked very hard with the sponsor, NV Energy, and the PUCN to resolve our concerns and we appreciate all the time and effort on that. The changes reflected in the amendment [Exhibit G] reflect important clarifications to ensure the PUCN retains all jurisdiction and discretion over any requests by NV Energy for financial incentives, such as deferred accounting, regulatory asset treatment, construction work in progress, or other financial incentives that could increase cost to customers. With one exception that is specifically called out in section 49, subsection 11, there is no intention to mandate any financial incentives for the utility, but instead the statute leaves all discretion with the PUCN to decide any such requests.

The bill now also ensures the utility will seek recovery through the normal course in a general rate case. These amendments were important to the NRA to ensure the PUCN retains full authority over utility requests for special accounting treatment and financial incentives, given the cost impact those can have on customers. The NRA sought these amendments as clarifications out of concern, not only as businesses but also for the hundreds of thousands of employees of the resort industry who are all impacted by utility rates. These changes ensure that the PUCN retains full authority and regulatory discretion to consider impacts to customers and decide whether to grant any requests from the utility for special accounting treatment, such as regulator asset, deferred accounting, or other financial incentives that make projects more expensive for customers.

Again, we appreciate the collaboration of the sponsor, NV Energy, and the PUCN in preparing the language included in the amendment to help ensure the PUCN's discretion that full regulatory authority remains in place. As Senator Brooks mentioned, it is critical that the agency retain all of its tools, discretion, and jurisdiction to monitor rate impacts in utility earnings. [Written testimony was also submitted, Exhibit L.]

Chair Monroe-Moreno:

I would encourage you to give our secretary your written testimony. We have reached the two-minute limit. Seeing no one else in the room to provide neutral testimony, we will move to Zoom to see if we have anyone joining us virtually to give neutral testimony. [There was no one.] Is there anyone joining us by telephone who would like to provide neutral testimony?

Jaina Moan, External Affairs Director, The Nature Conservancy:

Thank you for the opportunity to provide neutral testimony for S.B. 448 (R2). The Nature Conservancy supports a new energy economy and investments in clean energy, which are necessary for adjusting our urgent threat of climate change. Bills such as S.B. 448 (R2) represent important steps for Nevada. We believe that as we take these important steps for a greener future, any scenario for energy build-out should include strategic implementation that allows for our economy to thrive while balancing impacts on our ecosystems. This can be done with smart-from-the-start planning.

The State Climate Strategy published in December 2020 highlighted the need for smart-from-the-start renewable energy planning in the "Complex Climate Challenges for Nevada" section. A smart-from-the-start energy plan identifies and prioritizes lower-impact areas where renewable generation, storage, and transmission can be deployed while minimizing impact to natural lands, cultural resources, recreation, and other conservation values.

Applying such an approach to future transmission plans under consideration in the state will allow us to achieve our climate goals while creating a more efficient, equitable, and comprehensive process. Such a process generates value for all parties by harnessing knowledge from diverse stakeholders. Synthesizing this knowledge improves planning, permitting, coordination and implementation decisions, and increases the odds that renewable projects will minimize costs, maximize economic benefits, and prevent avoidable mistakes.

We want to alert the Committee to our written testimony [Exhibit M] which describes the benefits of a smart-from-the-start approach to energy planning and offers recommendations for next steps we can take to ensure we deploy energy resources in a way that minimizes adverse impacts for both people and nature. Thank you so much for consideration of our comments.

Chair Monroe-Moreno:

Are there any other callers waiting to provide neutral testimony? [There was no one.] When we went through opposition testimony, I failed to ask if there was anyone on the phone wishing to provide testimony in opposition. Is there anyone waiting on the phone to provide opposition testimony?

Patrick Donnelly, Nevada State Director, Center for Biological Diversity:

I am speaking in opposition to S.B. 448 (R2) today. There are many elements of the bill that we support. We are in full support of the rapid transition to a carbon-free future. However, the transmission portion of this bill is unacceptable and forces us to oppose.

The one thing no one has spoken about today is where we are going to put all of this renewable energy? The new transmission lines will open up vast amounts of our wild spaces to enter renewable energy development. Yes, it is likely that we need to have some sacrificed zones in order to meet our renewable energy goals. However, S.B. 448 (R2) has no provision for planning for this renewable energy future. The philosophy here is building a couple of billion-dollar transmission lines that ratepayers foot the bill for and let the market figure out where to put solar farms.

There could be huge consequences to this. Greenlink North follows the path of the loneliest road in America, U.S. Highway 50, across some of the most remote and beautiful places in the state, through Austin and Eureka—beloved landscapes to Nevadans and internationally iconic. I bet many of you have driven down the loneliest road at some point.

As I said, S.B. 448 (R2) contains no planning. If NV Energy builds a transmission line through there, it could turn into the loneliest solar farm in America if we do not have planning to ensure appropriate siting of these facilities. Putting forward policies like those in S.B. 448 (R2) is irresponsible without thorough planning and environmental impact analysis.

Senate Bill 448 (2nd Reprint) needs an amendment to ensure there is a smart-from-the-start review of impacts to the environment and environmental justice from the build-out of these transmission lines. Without it, this bill jeopardizes the values which make Nevada so wild and great. Such an analysis would likely show that the environmental and social impacts of building a transmission line along the loneliest road would not be acceptable to most Nevadans. Until such an amendment is put forward, we must oppose this bill.

Chair Monroe-Moreno:

Are there any other callers in opposition? [There were none.]

Senator Brooks, you brought a large number of people with you today. I said I would give 15 minutes for opposition, 15 minutes for support, and 15 minutes for neutral. Because there are so many people in the room and because the opposition did not use the total 15 minutes, I will allow you the remaining time that would have been for opposition. I am going to step out to vote in another committee. Assemblyman Watts will take over the meeting until my return.

[Assemblyman Watts assumed the Chair.]

Vice Chair Watts:

You can proceed whenever you are ready.

Jessica Ferrato, representing Solar Energy Industries Association:

For the sake of brevity today, I am here in support of the bill. I want to specifically highlight the provisions on the RTO. We think this is going to position Nevada to be a leader across the West. We would like to thank Senator Brooks for all of the work on the bill, and we look forward to working with all of you.

Rose McKinney-James, representing Valley Electric Association:

The CEO of Valley Electric Association, Mark Stallons, was unable to attend today. I believe during his remarks, the sponsor of the bill mentioned that Valley Electric is the lone utility that is a member of the California ISO. We have been very active in the transmission space and the renewable energy space. We simply want to go on the record in support of this measure.

I will note, if you will allow, on a personal basis, I think this is allowing our state to advance in a direction that will continue the leadership we have established over time. I express my appreciation to you as policymakers for making this the path forward. I want to express my great appreciation to Senator Brooks. I think he is a bold and important leader in this space. We look forward to continuing to support those efforts. We ask for your support of this measure.

Vice Chair Watts:

Is there anyone else in the room who would like to provide testimony in support? [There was no one.] Is there anyone waiting on the phone to provide testimony in support?

Andy Donahue, representing Laborers-Employers Cooperation and Education Trust:

I would like to thank the sponsor for such meticulous attention. We would like to support the bill as was presented today. To conclude, we would like to thank the sponsor.

Angie Dykema, Nevada Representative, Southwest Energy Efficiency Project:

The Southwest Energy Efficiency Project is in support of S.B. 448 (R2). For the sake of efficiency, I will keep it short. We are very grateful to Senator Brooks for introducing this long-awaited piece of legislation. We strongly urge the Committee to support this bill. We definitely thank Senator Brooks for including the component on energy efficiency in the package of legislation. Thank you for the consideration of our comments. [A letter was also submitted, Exhibit N.]

Dylan Sullivan, Senior Scientist, Climate and Clean Energy Program, Natural Resources Defense Council:

The Natural Resources Defense Council (NRDC) is a strong supporter of S.B. 448 (R2). In the interest of time, I want to direct your attention to NRDC's letter of support, which is filed as an exhibit [Exhibit O]. It includes detail on how electric vehicles are critical to meeting climate goals and reducing air pollution, and how all ratepayers benefit from increased electric vehicle adoption. We are also strong supporters of the transmission build-out that is contemplated in the bill, and also strong supporters of the increased focus on low-income households and historically underserved communities, both in the deployment of electric vehicle infrastructure and in energy efficiency programs.

I want to thank Senator Brooks for his work on this legislation and the work of other stakeholders and members. I urge you to support this bill.

Vice Chair Watts:

Thank you, Mr. Sullivan. I appreciate your submitting longer, written remarks and giving brief remarks by phone. I would encourage others to do that so we can get through as many people as possible. I will note for the Committee and the public's information that there are many written exhibits in support of the bill available on the Nevada Electronic Legislative Information System. I would encourage everyone to check those out. We can go to the next caller at this time.

Richard "Skip" Daly, representing Laborers Union, Local 169:

We want to express our support for this measure, which not only addresses infrastructure, building out the grid, emissions, and the issues surrounding those, it also creates jobs. I especially appreciate the labor standards within the bill and the things being corrected there. We want to add our support to this measure.

Cesar Diaz, Senior Policy Manager, ChargePoint, Inc.:

I am testifying in support of S.B. 448 (R2). ChargePoint, Inc., is the leading provider of electric vehicle charging stations and network services in North America and the globe. ChargePoint applauds Senator Brooks and the coauthors of S.B. 448 (R2) for considering transportation electrification in this bill and hearing our concerns.

We are fully supportive of this bill. With the recent amendment, testimony, and clarification, we believe section 49 will support competition, innovation, and private capital investment by nonutilities. That will result in more choices while reducing carbon emissions and air pollution. We look forward to working with members of the Committee, the rest of the Legislature, the PUCN, and utilities to implement these programs.

Matt Rubin, Clean Energy Program Analyst, Western Resource Advocates:

Western Resource Advocates (WRA) is a nonprofit organization dedicated to protecting the West's land, air, and water. Western Resource Advocates would like to thank Senator Brooks for sponsoring this bill. Three issues we would like to highlight that WRA supports is expanded transmission infrastructure, enabling the next generation of zero-carbon transportation, and implementing a long-term plan for achieving our climate goals. [Written testimony was also submitted, Exhibit P.]

Emily Duff, Manager, State Policy, Ceres:

Ceres runs the BICEP [Businesses for Innovative Climate and Energy Policy] Network, which is a coalition of 70 major employers across the country. We agree with much of what has been said in support of the bill. I want to note that we have submitted a letter as part of our testimony, signed by seven businesses with operations in Nevada [Exhibit Q]. In particular, this letter outlines the important role utilities have in supporting the transition to transportation electrification. This bill will help establish utility electric vehicle programs that will increase customer awareness, help businesses and consumers address upfront costs, and enable a robust and equitable charging network that will help stimulate the economy and create local jobs.

Rob Benner, Secretary-Treasurer, Building and Construction Trades Council of Northern Nevada:

We stand in support of S.B. 448 (R2) as a job-creating bill that would help make Nevada a nationwide renewable energy leader and create thousands of good-paying, local construction jobs for Nevada's workers.

Wendi Newman, Executive Director, Unified Construction Industry Council:

We are in support of S.B. 448 (R2).

Elsbeth Cordua DiMarzio, representing Toiyabe Chapter, Sierra Club:

The Toiyabe Chapter of the Sierra Club represents more than 40,000 members and supporters statewide in support of S.B. 448 (R2).

Senate Bill 448 (2nd Reprint) is an important step forward to combat climate change, but this legislation will also need to be accompanied by future bold action by the Legislature and other regulatory bodies in Nevada to bring equity in the fight for climate justice. Nevadans are on the front lines of the climate crisis with the fastest warming city in the nation, recurring wildfires, and ongoing drought. Climate change is not something that will impact us in the far-off future, it is impacting our communities and our livelihoods now.

For these reasons and others, we support S.B. 448 (R2) and want to thank Senator Brooks for his work on this piece of legislation. We have also submitted written comments [Exhibit R].

[Assemblywoman Monroe-Moreno reassumed the Chair.]

Chair Monroe-Moreno:

That was our last caller for testimony in support. Senator Brooks, do you have any final comments?

Senator Brooks:

I want to thank you for the thorough, complete, and lengthy hearing on this bill, and for your thoughtful questions. Assemblyman Wheeler and Assemblyman Ellison, will you send me something on that issue you were talking about because I want to do some more research on that? I appreciate it.

Submitted as exhibits but not discussed during the hearing are [Exhibit S] through [Exhibit RR] and will become part of the record.

Chair Monroe-Moreno:

I will close the hearing for Senate Bill 448 (2nd Reprint). That brings us to the last item on our agenda, which is public comment. Is there anyone here in the room who would like to provide public comment? Remember, public comment is neutral comment and nothing about the bill we just heard. [There was no one.] Is there anyone joining us virtually who would like to provide public comment? [There was no one.]

Members, thank you for the patience and the great dialogue on vetting this bill today. I truly appreciate that. Our next meeting will be on Thursday, May 27, 2021. Hopefully, we will be able to start at 1:30 p.m.

This meeting is adjourned [at 5:18 p.m.].

RESPECTFULLY SUBMITTED:

Lori McCleary
Committee Secretary

APPROVED BY:

Assemblywoman Daniele Monroe-Moreno, Chair

DATE: _____

EXHIBITS

Exhibit A is the Agenda.

Exhibit B is the Attendance Roster.

Exhibit C is a copy of a PowerPoint presentation titled "Nevada's New Energy Economy," presented by Senator Chris Brooks, Senate District No. 3, regarding Senate Bill 448 (2nd Reprint).

Exhibit D is a document titled "SB 448 – Key Points," submitted by Senator Chris Brooks, Senate District No. 3, regarding Senate Bill 448 (2nd Reprint).

Exhibit E is a document dated May 12, 2021, titled "BDR 46-Index of Topics and Sections," submitted by Senator Chris Brooks, Senate District No. 3, regarding Senate Bill 448 (2nd Reprint).

Exhibit F is a breakdown of bill sections with explanations submitted by Senator Chris Brooks, Senate District No. 3, regarding Senate Bill 448 (2nd Reprint).

Exhibit G is a conceptual amendment to Senate Bill 448 (2nd Reprint) dated May 25, 2021, submitted by Senator Chris Brooks, Senate District No. 3.

Exhibit H is written testimony dated May 25, 2021, submitted by Sarah Steinberg, Principal, Advanced Energy Economy, in support of Senate Bill 448, (2nd Reprint).

Exhibit I is a document titled "Why Nevada Needs to Plan for a Regional Grid Now," submitted by Sarah Steinberg, Principal, Advanced Energy Economy, regarding Senate Bill 448 (2nd Reprint).

Exhibit J is a copy of a PowerPoint presentation titled "Equity Improvements to Transportation Electrification Infrastructure Legislation," submitted by Rudy Zamora, Program Director, Chispa Nevada, regarding Senate Bill 448 (2nd Reprint).

Exhibit K is a letter submitted by Rudy Zamora, Program Director, Chispa Nevada, in support of Senate Bill 448 (2nd Reprint).

Exhibit L is written testimony submitted by Laura Granier, representing Nevada Resort Association, regarding Senate Bill 448 (2nd Reprint).

Exhibit M is written testimony dated May 24, 2021, submitted by Mauricia M.M. Baca, Nevada State Director, The Nature Conservancy, neutral to Senate Bill 448 (2nd Reprint).

Exhibit N is a letter dated May 24, 2021, submitted by Angie Dykema, Nevada Representative Southwest Energy Efficiency Project, in support of Senate Bill 448 (2nd Reprint).

Exhibit O is a letter dated May 25, 2021, submitted by Dylan Sullivan, Senior Scientist, Climate and Clean Energy Program, Natural Resources Defense Council, in support of Senate Bill 448 (2nd Reprint).

Exhibit P is a letter submitted by Matt Rubin, Clean Energy Program Analyst, Western Resource Advocates, in support of Senate Bill 448 (2nd Reprint).

Exhibit Q is a letter dated March 29, 2021, from various organizations, submitted by Emily Duff, Manager, State Policy, Ceres, in support of Senate Bill 448 (2nd Reprint).

Exhibit R is written testimony dated May 24, 2021, submitted by Elspeth Cordua DiMarzio, representing Toiyabe Chapter, Sierra Club, in support of Senate Bill 448 (2nd Reprint).

Exhibit S is the Public Utilities Commission of Nevada's Fiscal Impact Statement, dated May 20, 2021, submitted by Stephanie McMullen, Executive Director, Public Utilities Commission of Nevada, regarding Senate Bill 448 (2nd Reprint).

Exhibit T is a document titled "Fiscal Notes – Fiscal Note ID 10325," submitted by Stephanie McMullen, Executive Director, Public Utilities Commission of Nevada, regarding Senate Bill 448 (2nd Reprint).

Exhibit U is a document dated May 18, 2021, titled "State of Nevada – Budget Division, Payroll/Position Detail," submitted by Stephanie McMullen, Executive Director, Public Utilities Commission of Nevada, regarding Senate Bill 448 (2nd Reprint).

Exhibit V is written testimony dated May 25, 2021, from various organizations, submitted by Sarah Steinberg, Policy Principal, Advanced Energy Economy, in support of Senate Bill 448 (2nd Reprint).

Exhibit W is written testimony dated May 24, 2021, submitted by Thomas Ashley, Vice President, Policy & Market Development, Greenlots, in support of Senate Bill 448 (2nd Reprint).

Exhibit X is written testimony dated May 25, 2021, submitted by Benjamin Prochazka, Executive Director, Electrification Coalition, in support of Senate Bill 448 (2nd Reprint).

Exhibit Y is written testimony dated May 24, 2021, submitted by Paulette Stauffer Henriod, Nevada Environmental and Sustainability Specialist, Mormon Women for Ethical Government, in support of Senate Bill 448 (2nd Reprint).

Exhibit Z is written testimony dated May 24, 2021, submitted by Ann Silver, CEO, Reno + Sparks Chamber of Commerce, in support of Senate Bill 448 (2nd Reprint).

Exhibit AA is written testimony dated May 25, 2021, submitted by Susan Nedell, Advocate, E2 Mountain West, in support of Senate Bill 448 (2nd Reprint).

Exhibit BB is written testimony, submitted by Melissa Ramos, Manager, Clean Air Advocacy, American Lung Association, in support of Senate Bill 448 (2nd Reprint).

Exhibit CC is written testimony, submitted by Cinthia Moore, National Lead, EcoMadres, in support of Senate Bill 448 (2nd Reprint).

Exhibit DD is written testimony dated May 25, 2021, submitted by Mary House, representing CHR, Inc., in support of Senate Bill 448 (2nd Reprint).

Exhibit EE is written testimony dated May 25, 2021, submitted by Joel Levin, Executive Director, Plug In America, in support of Senate Bill 448 (2nd Reprint).

Exhibit FF is written testimony, submitted by Thomas Cain, CEO, Sustainability Partners, LLC, in support of Senate Bill 448 (2nd Reprint).

Exhibit GG is a document titled, "Solving sustainable transportation needs with Infrastructure as a Utility Service," submitted by Thomas Cain, CEO, Sustainability Partners, LLC, in support of Senate Bill 448 (2nd Reprint).

Exhibit HH is a document titled, "Electric Vehicle Fleet & Charging Stations," submitted by Thomas Cain, CEO, Sustainability Partners, LLC, in support of Senate Bill 448 (2nd Reprint).

Exhibit II is written testimony, submitted by Ryan Cherry, Managing Director, Coalition for the Optimization of Renewable Development, in support of Senate Bill 448 (2nd Reprint).

Exhibit JJ is written testimony dated May 25, 2021, submitted by Ed Garcia, representing Consolidated Edison Clean Energy Businesses, Inc., in support of Senate Bill 448 (2nd Reprint).

Exhibit KK is written testimony, submitted by Nate Blouin, Policy Manager, Interwest Energy Alliance, in support of Senate Bill 448 (2nd Reprint).

Exhibit LL is written testimony, submitted by Jerry Holliday, Director, Uplift Foundation of Nevada, in support of Senate Bill 448 (2nd Reprint).

Exhibit MM is written testimony, dated May 25, 2021, submitted by Annette Magnus, Executive Director, Battle Born Progress, in support of Senate Bill 448 (2nd Reprint).

Exhibit NN is written testimony dated May 25, 2021, submitted by Will Drier, Senior Policy Analyst, Electrification Coalition, in support of Senate Bill 448 (2nd Reprint).

Exhibit OO is written testimony submitted by Matthew Dustin, representing Southern Nevada Chapter, National Electrical Contractors Association, in support of Senate Bill 448 (2nd Reprint).

Exhibit PP is written testimony submitted by Christi Cabrera, Policy and Advocacy Director, National Conservation League, in support of Senate Bill 448 (2nd Reprint).

Exhibit QQ is written testimony dated May 25, 2021, submitted by Paul Selberg, Executive Director, Nevada Conservation League, in support of Senate Bill 448 (2nd Reprint).

Exhibit RR is written testimony dated May 25, 2021, submitted by Andrew J. MacKay, Executive Director, Nevada Franchised Auto Dealers Association, in neutral to Senate Bill 448 (2nd Reprint).

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 **REQUEST DATE:** 07-19-2024

REQUEST NO: Staff 161 **KEYWORD:** transmission infrastructure clean energy economy plan; standalone projects green

REQUESTER: Danise **RESPONDER:** Pottey, Charles (NV Energy)

REQUEST:

Reference: Transmission Infrastructure for a Clean Energy Economy Plan

Question: 1. Please confirm or deny that constructing the Greenlink North and Harry Allen to Northwest 525 kV transmission lines as standalone projects, i.e., not constructing the Greenlink West transmission line, will satisfy each of the criteria listed in NRS 704.79877(1).

2. If confirmed, please provide a detailed explanation, evaluation and analysis of how constructing the Greenlink North and Harry Allen to Northwest 525 kV transmission lines as standalone projects, i.e., not constructing the Greenlink West transmission line, satisfies each of the criteria listed in NRS 704.79877(1). Please address each subsection in NRS 704.79877(1)(a) through NRS 704.79877(1)(f) individually.

3. If denied, please provide a detailed explanation, evaluation and analysis of how constructing the Greenlink North and Harry Allen to Northwest 525 kV transmission lines as standalone projects, i.e., not constructing the Greenlink West transmission line, does not satisfy each of the criteria listed in NRS 704.79877(1). Please address each subsection in NRS 704.79877(1)(a) through NRS 704.79877(1)(f) individually.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

Constructing the Greenlink North and Harry Allen to Northwest 525 kV transmission lines as standalone projects, i.e., not constructing the Greenlink West transmission line, will not satisfy each of the criteria listed in NRS 704.79877(1) as indicated below:

(a) Assure a reliable and resilient transmission network in this State to serve the existing and currently projected transmission service obligations of the electric utility would be greatly reduced since there would only be one interconnection between northern and southern Nevada rather than two as planned for by constructing both Greenlink West and Greenlink North. The northern Nevada system import limit would be reduced, the total transfer capacity (TTC) between northern and southern Nevada would be reduced and ability for one system to back up the other system is reduced. Existing requests for northern Nevada system import capacity cannot be accommodated without Greenlink West.

(b) Assist the utility in meeting the portfolio standard established by NRS 704.7821 and the goals for the reduction of greenhouse gas emissions set forth in NRS 445B.380 and 704.7820 would be reduced. Major renewable energy resource zones are located near the proposed Armargosa and Esmeralda substations on Greenlink West. The majority of renewable generator interconnection requests that NV Energy has received on the Greenlink project are at these two substations. Without Greenlink West these interconnections could not be accommodated. The designated network resource for Armargosa Solar also could not be accommodated. The projected greenhouse gas would likely increase. The northern Nevada system import limit would be reduced, and the TTC between northern and southern Nevada would be reduced. This would reduce the ability to integrate renewable energy resources and jointly dispatch the northern and southern systems to reduce greenhouse gas emissions.

(c) Promote economic development in this State, including, without limitation, by creating jobs, expanding the tax base or providing other economic benefits would also be reduced since the investment in transmission facilities is reduced and the transmission facilities are less integrated.

(d) Expand transmission access to renewable energy zones designated by the Commission pursuant to subsection 2 of NRS 704.741 to promote the development and use of renewable energy resources in this State would be reduced. Major renewable energy resource zones are located near the proposed Armargosa and Esmeralda substations on Greenlink west. The majority of renewable generator interconnection requests that NV Energy has received on the Greenlink project are at these two substations. Without Greenlink West these interconnections could not be accommodated. The designated network resource for Armargosa Solar also could not be accommodated

(e) Use federally granted rights-of-way within designated renewable energy transmission corridors before the expiration of such rights-of-way is reduced. BLM permitting for Greenlink West is nearly completed and the notice to proceed is expected to be issued in December 2024. If Greenlink West is not constructed this federally granted rights-of-way will not be used.

- (f) Support the development of regional transmission interconnections that may be required for:
- (1) This State to cost-effectively achieve the goals for the reduction of greenhouse gas emissions set forth in NRS 445B.380 and 704.7820; and
 - (2) The electric utility to participate fully in any future organized competitive regional wholesale electricity market on the Western Interconnection. Greenlink West does not directly connect to other states, but it is needed to support the development of regional transmission interconnections. It increases the TTC between northern and southern Nevada which allows for the development of regional transmission interconnections that may be required for this State to cost-effectively achieve the goals for the reduction of greenhouse gas emissions and to participate fully in any future organized competitive regional wholesale electricity market.

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 REQUEST DATE: 07-09-2024

REQUEST NO: Staff 128 KEYWORD: greenlink; sb 448 satisfied
deny approval greenlink
west approve greenlink north

REQUESTER: Danise RESPONDER: Pottey, Charles (NV Energy)

REQUEST:

Reference: Greenlink Project

Question: Please explain whether NV Energy believes the legislative intent of Transmission Infrastructure for a Clean Energy Economy as outlined in SB 448 would be satisfied if the Commission were to deny the continued approval of the Greenlink West but approve the request for continued approval of the Greenlink North and Northwest to Harry Allen transmission line.

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENT CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

After a discussion with Staff, the Companies are instead responding to the following question as agreed with Staff:

Without the continued approval of the Greenlink West, can Greenlink North and Northwest to Harry Allen transmission line increase the transmission import capacity of northern Nevada by at least 800 megawatts as required by NRS 704.79877(2)(a)?

NRS 704.79877 required the Companies to file a transmission infrastructure for a clean energy economy plan on or before September 1, 2021. The Companies complied with the requirement by filing the Joint Application presenting the plan in Docket No. 21-06001.

Transmission planning studies show that the addition of Greenlink North without Greenlink West will increase the northern Nevada system import capacity by 175 MW from 1,275 MW to 1,450 MW. Without Greenlink West, the worst single contingency remains the loss of ON Line. The addition of Greenlink North alone does not do much to mitigate this contingency. Additionally, if Greenlink North is constructed without Greenlink West, it would still be necessary to construct the Ft. Churchill-Mira Loma 345 kV and Ft. Churchill- Comstock Meadows #1 345 kV common tie lines in order to utilize Greenlink North. These common tie lines are currently planned to be constructed contemporaneously with the Greenlink West project.

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 **REQUEST DATE:** 07-19-2024
REQUEST NO: Staff 159 **KEYWORD:** greenlink north transmission
import capacity; northern nevada
800MW greenlink wes
REQUESTER: Danise **RESPONDER:** Pottey, Charles

REQUEST:

Reference: Greenlink North Transmission Import Capacity

Question: Please confirm or deny that the Greenlink North transmission line only increases the northern Nevada transmission system import capacity by 800 MW if the Greenlink West project is constructed.

RESPONSE CONFIDENTIAL (yes or no): No.

TOTAL NUMBER OF ATTACHMENTS: None.

RESPONSE:

The Greenlink North transmission line only will increase the northern Nevada transmission system import capacity by 800 MW if the Greenlink West project is constructed. The current import limit for northern Nevada is 1,275 MW. The addition of Greenlink West will increase the import capacity by 725 MW from 1,275 MW to 2,000 MW. The addition of Greenlink North with Greenlink West in service will increase the system import capacity from 2,000 MW to 2,800 MW.

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 REQUEST DATE: 07-19-2024

REQUEST NO: Staff 160 KEYWORD: transmission infrastructure clean
energy economy plan; standalone
projects green

REQUESTER: Danise RESPONDER: Pottey, Charles (NV Energy)

REQUEST:

Reference: Transmission Infrastructure for a Clean Energy Economy Plan

Question: 1. Please confirm or deny that constructing the Greenlink North and Harry Allen to Northwest 525 kV transmission lines as standalone projects, i.e., not constructing the Greenlink West transmission line, affects, changes, or otherwise impacts the Transmission Infrastructure for a Clean Energy Economy Plan and/or the criteria listed in NRS 704.79877(4) in any way.

2. If confirmed, please provide a detailed explanation, evaluation and analysis of the effects, changes, or impacts the Transmission Infrastructure for a Clean Energy Economy Plan and how those effects, changes, or impacts to the implementation of the Transmission Infrastructure for a Clean Energy Economy Plan will satisfy the criteria listed in NRS 704.79877(4). Please address each subsection in NRS 704.79877(4)(a) through NRS 704.79877(4)(n) individually.

3. If denied, please provide a detailed explanation, evaluation, and analysis of how constructing the Greenlink North and Harry Allen to Northwest 525 kV transmission lines as standalone projects, i.e., not constructing the Greenlink West transmission line, will not affect, change, or otherwise impact the Transmission Infrastructure for a Clean Energy Economy Plan and/or the criteria listed in NRS 704.79877(4) in any way. Please address each subsection in NRS 704.79877(4)(a) through NRS 704.79877(4)(n) individually

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

Constructing the Greenlink North and Harry Allen to Northwest 525 kV transmission lines as standalone projects, i.e., not constructing the Greenlink West transmission line, affects, changes, or otherwise impacts the Transmission Infrastructure for a Clean Energy Economy Plan and/or the criteria listed in NRS 704.79877(4) as follows:

(a) The reliability of the transmission network of the utility would be greatly reduced since there would only be one interconnection between northern and southern Nevada rather than two as planned for by constructing both Greenlink West and Greenlink North.

(b) The resilience of the transmission network of the utility, including, without limitation, the ability of the transmission network to withstand natural or manmade events that could otherwise disrupt the provision of electric service in this State would also be reduced. There would only be one interconnection between northern and southern Nevada, the northern Nevada system import limit would be reduced, the total transfer capacity (TTC) between northern and southern Nevada would be reduced and ability for one system to back up the other system is reduced.

(c) The development and use of renewable energy resources in this State would be reduced. Major renewable energy resource zones are located near the proposed Armargosa and Esmeralda substations on Greenlink west. The majority of renewable generator interconnection requests that NV Energy has received on the Greenlink project are at these two substations. Without Greenlink West, these interconnections could not be accommodated. The designated network resource for Armargosa Solar also could not be accommodated.

(d) Economic activity and economic development in this State over a period of not less than 20 years from the date of the plan, including, without limitation, capital investments, the direct or indirect creation of jobs and additions to the tax base of this State would also be reduced since the investment in transmission facilities is reduced and the transmission facilities are less integrated.

(e) The projected carbon dioxide emissions of the utility resulting from the generation of electricity, including, without limitation, carbon dioxide emissions from the generation of electricity that is purchased by the electric utility would likely increase. The northern Nevada system import limit would be reduced, and the TTC between northern and southern Nevada would be reduced. This would reduce the ability to integrate renewable energy resources and jointly dispatch the northern and southern systems to reduce carbon dioxide emissions.

(f) The ability of the utility to diversify its supply portfolio of renewable energy resources by including larger amounts of geothermal energy generation and hydrogeneration would likely be reduced. Currently, there are no geothermal energy generation and hydrogeneration interconnection requests along Greenlink West. However, the reduction in the northern Nevada system import limit and the TTC between northern and southern Nevada would likely reduce the ability to access these resources and transfer them between northern and southern Nevada.

(g) The ability of the utility to reliably integrate into its supply portfolio larger amounts of electricity from variable renewable energy resources, including, without limitation, solar and wind energy resources would be reduced. The ability to transfer power between northern and southern Nevada and between adjacent balancing authority area (BAA) is critical to the ability follow

changes in the output of larger amounts of electricity from variable renewable energy resources. Without Greenlink West, these transfers cannot be accommodated.

(h) The ability of the utility to reduce its energy supply costs by selling to other states electricity generated in this State from renewable energy during periods when the utility's supply of electricity exceeds the demand for electricity by the customers of the utility would be reduced. Greenlink West does not directly connect to other states. However, it increases the TTC between northern and southern Nevada which allows for greater sales of electricity generated in this State from renewable energy during periods when the utility's supply of electricity exceeds the demand for electricity.

(i) The ability of the utility to reduce its energy supply costs by purchasing electricity generated in other states from renewable energy during periods when the demand for electricity by the customers of the utility exceeds the availability of electricity from renewable generation in this State would be reduced. Greenlink West does not directly connect to other states. However, it increases the TTC between northern and southern Nevada which allows for greater purchases of electricity generated in other states.

(j) The utility's provision of open access to interstate and intrastate transmission services, in accordance with the utility's open access transmission tariff, to other persons in this State using the utility's transmission network, including, without limitation, eligible customers, as defined in NRS 704B.080, and providers of new electric resources, as defined in NRS 704B.130, who are or intend to become customers of the utility's interstate transmission services would be reduced. Existing requests for northern Nevada system import capacity cannot be accommodated without Greenlink West.

(k) The ability of the utility to accommodate requests for access to renewable energy resources that will allow customers who want to acquire all of their energy from zero carbon dioxide emission resources to do so will be reduced. Major renewable energy resource zones are located near the proposed Armargosa and Esmeralda substations on Greenlink west. The majority of renewable generator interconnection requests that NV Energy has received on the Greenlink project are at these two substations. Without Greenlink West, these interconnections could not be accommodated

(l) The development of regional transmission interconnections that may be required for this State to cost-effectively achieve the goals for the reduction of greenhouse gas emissions set forth in NRS 445B.380 and 704.7820 or for the electric utility to participate fully in any future organized competitive regional wholesale electricity market on the Western Interconnection utility would be reduced. Greenlink West does not directly connect to other states. However, it increases the TTC between northern and southern Nevada which allows for the development of regional transmission interconnections that may be required for this State to cost-effectively achieve the goals for the reduction of greenhouse gas emissions and to participate fully in any future organized competitive regional wholesale electricity market.

(m) The rates charged to the bundled retail customers of the utility may increase because the northern Nevada system import limit would be reduced, and the TTC between northern and southern Nevada would be reduced. This would reduce the ability to integrate renewable energy resources and jointly dispatch the northern and southern systems.

(n) The financial risk to the customers of the utility would increase because transmission system obligations under the OATT could not be met. Also, the northern Nevada system import limit would be reduced, and the TTC between northern and southern Nevada would be reduced. This would reduce the ability to integrate renewable energy resources and jointly dispatch the northern and southern systems.

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO:	24-05041	REQUEST DATE:	09-06-2024
REQUEST NO:	Staff 355	KEYWORD:	staff 172; greenlink transformers equipment purchased installed constructed ener
REQUESTER:	Maguire	RESPONDER:	Lateef, Shahzad

REQUEST:

Reference: NRS 704.79877

Question: Given that in Staff Data Request 172 NV Energy has clearly stated that the 2 Lander 525 kV to 230 kV Transformers, the 2 Esmeralda 525 kV to 230 kV Transformers and the 2 Armargosa 525 kV to 230 kV transformers are part of the overall Green Link Project (i.e., "clean energy economy plan"), please answer the following:

A) Please explain in detail if NV Energy believes it would be in violation of NRS 704.79877 if all of these transformers are not purchased, installed, constructed and energized by the statutory required in-service date of Dec. 31, 2028. If NV Energy does not believe it would be in violation of the statute referenced if these transformers are not installed and placed into service by the required date, please explain the basis for that belief given that NV Energy appears to be taking the position is that these transformers are part of the Greenlink Project, which NV Energy has represented to be the high-voltage transmission infrastructure required to be placed into service no later than Dec. 31, 2028, per the statute.

B) For all the other equipment listed in Staff DR 172 for which NV Energy is stating that the equipment is part of the Greenlink project, please explain if NV Energy believes it would be in violation of NRS 704.79877 (1) if some of this equipment listed is not installed by the Dec. 31, 2028 required in-service date. If NV Energy does not believe it would be in violation of the statute reference if not all of the equipment is installed by Dec. 31, 2028, please provide the basis for that belief.

C) Given the answers to Part A and Part B above and using NV Energy's response to Staff DR 172 as a reference, please outline in detail each and every component of the "clean energy economy plan" AKA Greenlink that NV Energy believes must be constructed and placed into service on or before Dec. 31, 2028, pursuant NRS 704.79877.

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENT CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: One (Zipped)

RESPONSE:

A: NV Energy would not be in violation of NRS 704.79877. The statute requires NV Energy to file a specific plan (TICEEP) on or before September 21, 2021. NV Energy complied with the statute by timely filing the required plan in Docket No. 21-06001.

To clarify, only the Lander Substation 230kV buildout was requested and approved in Docket No.21-06001, the required TICEEP plan. The construction of Amargosa and Esmaralda substations was approved in Docket No. 20-07023 and 23-08015.

B: NV Energy would not be in violation of NRS 704.79877 for the reason stated in (A). Further, some of the equipment listed in Staff DR 172 is not part of TICEEP - GLW and the Commons Ties are not part of the approval under TICEEP in Docket No. 21-06001.

C: NRS 704.79877 requires NV Energy file the TICEEP; it does not require NVE to construct and place in service any component.

The attachment "24-05041 - Staff 355 - Attach 01.pdf" lists the segments of high-voltage transmission that were approved under TICEEP, Docket No. 21-06001.

**Greenlink Nevada Transmission Project – TICEEP Segments
Response to Staff 355**

Line Segment/Substation	Please confirm or deny whether NV Energy is requesting Commission approval to construct each item in the instant Docket.	Please identify the specific Prayer for Relief in the Application to the item and explain whether that item is part of the Greenlink North, Greenlink West, Harry Allen to Northwest 525 kV transmission line, common ties, or another project.	Please confirm or deny whether NV Energy is requesting critical facility status for that specific item and, if so, what specific financial incentive NV Energy is requesting	Budget Forecast (\$ thousand)
Harry Allen – Northwest 525 kilovolt transmission line	Yes	1(g)(xxix) Greenlink West Prior approval received in docket 21-06001	No (Already designated as a Critical Facility) Requesting Construction Work in Progress incentive	\$173,921.4
Fort Churchill – Robinson Summit 525 kilovolt transmission line	Yes	1(g)(xxix) Greenlink North Prior approval received in docket 21-06001	No (Already designated as a Critical Facility) Requesting Construction Work in Progress incentive	\$1,159,130.7
Lander Substation	Yes	1(g)(xxix) Greenlink North Prior approval received in docket 21-06001	No (Already designated as a Critical Facility) Requesting Construction Work in Progress incentive	\$264,635.9
Robinson Summit Substation	Yes	1(g)(xxix) Greenlink North Prior approval received in docket 21-06001	No (Already designated as a Critical Facility)	\$68,695.1

Greenlink Nevada Transmission Project – TICEEP Segments
Response to Staff 355

Harry Allen Substation	Yes	1(g)(xxix) Greenlink West Prior approval received in docket 21-06001	Requesting Construction Work in Progress incentive No (Already designated as a Critical Facility) Requesting Construction Work in Progress incentive	\$25,499.5
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NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 **REQUEST DATE:** 09-25-2024
REQUEST NO: Staff 394 **KEYWORD:** staff 355 Greenlink North
finish permitting delay in-
service 2031; 20-07023 NRS
REQUESTER: Danise **RESPONDER:** Lateef, Shahzad

REQUEST:

Reference: NV Energy's Response to Staff DR 355

Question: In its response to Staff DR 355, NV Energy stated, "NRS 704.79877 requires NV Energy to file the TICEEP; it does not require NVE to construct and place in service any component." Given that NV Energy believes that the NRS 704.79877 does not require NV Energy to construct and place in service any component and that the Greenlink North project has yet to be permitted, does NV Energy believe that the Commission can order NV Energy to finish permitting the Greenlink North project but delay the in-service date until 2031 or later as the Commission previously ordered in Docket No. 20-07023, prior to the passage of NRS 704.79877. If not, please explain why not.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

NV Energy filed the TICEEP Plan with the Commission in Docket No. 21-06001 as required per the NRS 704.79877. The Commission notified the Companies that the TICEEP plan, as filed, met the requirements of NRS 704.79877 and approved it. The Commission's order in Docket No. 21-06001 approved the construction of Greenlink North, Lander substation, and Harry Allen to Northwest 525 kV transmission line which is part of Greenlink West. On September 9, 2024, the Bureau of Land Management executed the Record of Decision on Greenlink West, including Harry Allen to Northwest 525 kV transmission line. Also on September 9, 2024, the Bureau of Land Management published the Draft Environmental Impact Statement for Greenlink North. The

design, engineering and permitting of Greenlink North is progressing pursuant to the Docket No. 21-06001 order. In this docket (Docket No. 24-05041), NV Energy is seeking continued approval of the entire Greenlink project based on escalated costs, with planned in-service of Greenlink North by December 31, 2028, as approved by the PUCN. An intentionally delayed in-service date of Greenlink North until 2031 or later will be contrary to the Commission's order in Docket No. 21-06001.

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 REQUEST DATE: 07-24-2024
REQUEST NO: Staff 184 KEYWORD: greenlink nevada
project cancelling costs
REQUESTER: Danise RESPONDER: Lateef, Shahzad

REQUEST:

Reference: Greenlink Nevada Project Costs

Question: If the Commission were to deny the Greenlink Nevada Project, please provide the total cost of canceling the Project, including any charges NV Energy would incur.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

The Company expects to spend \$626 million on Greenlink Nevada transmission project through the end of 2024.

Depending on the timing of notification of denial of Greenlink Nevada transmission project by the Commission and the extent of denial (all or partial), the Company will need to inform all contractors to stop additional work. The Company will then receive the final invoices for any work that has been completed by the contractors and manufacturers but has not been included in past invoices. The Company will be obligated to pay those final invoices. As work for Greenlink Nevada transmission project is invoiced based on completion of milestones, the exact amount of the final invoices is not estimated at this time.

SUPPLEMENT NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO:	24-05041	REQUEST DATE:	09-09-2024
REQUEST NO:	Staff 295 Supplement	KEYWORD:	greenlink staff 95, 171, 172, 224; meeting request
REQUESTER:	Danise	RESPONDER:	Lateef, Shahzad

REQUEST:

Reference: Greenlink Nevada Project

Question: Please contact Adam Danise at adanise@puc.nv.gov to set up a meeting with Staff to discuss the Greenlink Nevada Project generally and to discuss NV Energy's responses to Staff DRs 95, 171, 172, and 224. Staff requests NV Energy's Greenlink Nevada Project witnesses Shahza Lateef, Charles Potty, Kiley Moore, and Joshua Langdon all attend the meeting.

ORIGINAL RESPONSE:

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

A meeting with the Staff has been requested.

SUPPLEMENTAL RESPONSE:

SUPPLEMENT : 1

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

In the meeting with Staff and BCP on August 30, 2024, the Company had agreed to assess and provide responses to several questions. Those responses to new BCP and Staff data requests and supplements to existing Staff data requests, as discussed in the meeting.

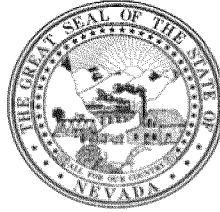
In response to Mr. Shil's question on changes to Greenlink forecast and AFUDC in light of \$300m lower construction contract compared to what was included in the construction forecast, the Company does not have an updated project forecast at this time. This is based on significant incremental costs that are currently being evaluated that will offset the reduction in construction contract.

As an example, the Company is assessing increased need for environmental monitors. The BLM stipulation has required to have an environmental monitor with each piece of equipment that is being used in construction. The Company is still evaluating the full scope of this requirement. Preliminary assessment indicates that it will cost an additional \$117m to provide environmental monitoring for each piece of equipment used in the contract.

As another example, the construction contract proposal includes a large number of crews working on different parts of the project at the same time. This will require significant increase in construction administration and management, and material management services. A full incremental cost of such services will be determined once the crew sizes, work locations, laydown yards, and construction schedules are finalized to a greater detail.

The Company is also in the process of contracting an independent Cost Management contractor and an Owner's Engineer based on the increased role of comprehensive project services contractor.

Although the Company expects some reduction in project costs based on lower than forecasted construction contract, based on the above discussion, a reasonably accurate update in the project forecast cannot be completed at this time.



NEVADA LEGISLATURE JOINT INTERIM STANDING COMMITTEE ON GROWTH AND INFRASTRUCTURE

(Section 6 of Assembly Bill 443, Chapter 392,
Statutes of Nevada 2021, at page2505)

DRAFT MINUTES

January 12, 2022

The first meeting of the Joint Interim Standing Committee on Growth and Infrastructure for the 2021–2022 Interim was held on Wednesday, January 12, 2022, at 10 a.m. Pursuant to NRS 218A.820, there was no physical location for this meeting.

The agenda, minutes, meeting materials, and audio or video recording of the meeting are available on the Joint Interim Standing Committee's meeting page. The audio or video recording may also be found at <https://www.leg.state.nv.us/Video/>. Copies of the audio or video record can be obtained through the Publications Office of the Legislative Counsel Bureau (LCB) (publications@lcb.state.nv.us or 775/684-6835).

COMMITTEE MEMBERS PRESENT:

Assemblywoman Daniele Monroe-Moreno, Chair
Senator Dallas Harris, Vice Chair
Senator Chris Brooks
Senator Scott T. Hammond
Assemblyman John C. Ellison
Assemblyman Glen Leavitt
Assemblyman C. H. Miller
Assemblyman Howard Watts III

LEGISLATIVE COUNSEL BUREAU STAFF PRESENT:

Marjorie Paslov Thomas, Senior Principal Policy Analyst, Research Division
Christina Harper, Acting Manager of Research Policy Assistants, Research Division
Jessica Dummer, Principal Deputy Legislative Counsel, Legal Division
Julie Waller, Principal Program Analyst, Fiscal Analysis Division

Items taken out of sequence during the meeting have been placed in agenda order.

AGENDA ITEM I—CALL TO ORDER AND OPENING REMARKS

[Chair Monroe-Moreno called the meeting to order. She welcomed members, presenters, and the public to the first meeting of the Joint Interim Standing Committee on Growth and Infrastructure.]

Chair Monroe-Moreno:

At this time, I would like to take a few minutes to allow the members on this Committee to introduce themselves. If the members would please indicate the district that you represent as well as your goals for the Committee during this 2021-2022 Interim Session. We will begin with our Vice Chair Senator Harris.

Vice Chair Harris:

Thank you so much Madam Chair. I am Senator Dallas Harris, I represent District 11 in the far, far, now southwest part of Clark County, and I am really looking forward to the opportunity to keep Nevada at the forefront of infrastructure and energy issues across the state. We have an opportunity to lead. We have a lot of infrastructure dollars that have just been allocated. I am excited to see what we are going to do to make sure that we lead the nation in dealing with these issues.

Chair Monroe-Moreno:

Thank you so much. Senator Brooks.

Senator Brooks:

Good morning, Chair. Senator Chris Brooks from Senate District 3, right in the center of Las Vegas. I think this is just an incredibly important subject and a very important Committee. I have seen firsthand that good policy from the State of Nevada can lead to economic growth. I think that energy and energy economy are our biggest opportunity for economic growth and diversification in the State of Nevada. I think that the policies coming out of this Committee and the Legislature can really be beneficial to that.

Chair Monroe-Moreno:

Thank you so much and welcome. Senator Hammond.

Senator Hammond:

Good morning, Chair and thank you for the opportunity. I am Senator Hammond. I represent District 18, which is located in the Centennial Hills area, it is north on the 95. I have been involved with this particular Committee for many years. I think that the policy is so vital and incredibly important, especially now that we are talking about the dollars that are flowing into the state, and the potential that we have to make sure those are spent wisely. I am looking forward to having a productive Interim that leads into a really exceptional regular session. Thank you very much.

Chair Monroe-Moreno:

Thank you and welcome. Assemblyman Ellison.

Assemblyman Ellison:

Thank you, and it is good to see you guys again. I represent District 33, which is right now if you look at it with the new district it would be half the state. From the Utah border, Idaho border, up into Humboldt and all the way down, wraps around Clark to the other end of the state, so that is half the state basically. I look forward to this. We are having a lot of problems in rural Nevada right now with infrastructure, mostly communications. That is why I am here today in Carson, because we cannot keep the computers up and running for very long. There are new companies moving in. It is exciting what is going to happen in rural Nevada, and the amount of money it is going to be put out there for some of the infrastructure. Thank you, and I look forward to this.

Chair Monroe-Moreno:

Thank you and welcome. Assemblyman Leavitt.

Assemblyman Leavitt:

Thank you, Madam Chair. Glen Leavitt, Assembly District 23, which is the southern tip of the state. This is my second time serving on the Interim Growth and Infrastructure Committee. I served on the Growth and Infrastructure in both regular Sessions. I really enjoy this Committee, and what we do for infrastructure, which is so important to transportation, energy, and just make sure that we support all of our businesses and that we spend the money that it is given to us wisely. Thank you.

Chair Monroe-Moreno:

Thank you and welcome. Assemblyman Miller.

Assemblyman Miller:

Thank you. I am Assemblyman Cameron C. H. Miller. I represent Assembly District 7, which is in the southern part of the state, right on the cusp of bordering Las Vegas and North Las Vegas - primarily my district is in North Las Vegas; but I do represent some fine folks in the City of Las Vegas. The priorities for me being on this Committee; it is my first time on the Committee, I am a freshman legislator. What is really important to me is when we talk about growth and infrastructure is technology and the intersection with the emphasis that technology has on our energy, transportation, and our businesses, as well as communications; like Assemblyman Ellison mentioned across the state. We need to make sure that our technological infrastructure is up to par to welcome all the new Nevadans that are coming, and further enhance the experience of being a Nevadan for those already here. Thank you.

Chair Monroe-Moreno:

Thank you so much and welcome. And last but not least, Assemblyman Watts.

Assemblyman Watts:

Thank you very much, Madam Chair. Assemblyman Howard Watts, I represent District 15, currently in the central east part of Clark County. I have had the privilege of serving on the Assembly Growth and Infrastructure Committee in both of my terms in the Assembly. Last Session, I also had the honor of being vice chair of the Assembly Committee. I share the enthusiasm of many of my colleagues at the infusion of federal dollars, and the opportunities that has to bring additional infrastructure improvements to our state. I am

particularly interested in making sure that we close some of the disparities that exist in access to that infrastructure, as Assemblyman Ellison mentioned getting broadband out to rural communities and all of our communities; that is something I am very interested in. I am also extremely interested in how we utilize some of these investments to advance us towards our clean energy and climate goals. Thank you.

Chair Monroe-Moreno:

Thank you and welcome.

I am Assemblywoman Danielle Monroe-Moreno. I represent Assembly District 1, which is primarily in the City of North Las Vegas. I am honored to serve once again as the Chair of this Interim Committee. I have also served as the Chair of the Growth and Infrastructure Committee during the Legislative Session. I am looking forward to working with all of the members on this Committee, as well as those that will be joining us virtually. I am looking forward to getting updates about legislation that we have been able to cast and how that is working. Also, the discussions of how we continue moving Nevada forward with other actions as has been talked about, by many of the members as they introduced themselves, in the areas of infrastructure, transportation, and energy.

I thank all those in advance, whether you are a person, a group, or an organization that will come before us to present information. Thank you for joining us over the next few months. We have a lot of work to do. As mentioned, there is a lot of money coming into the state, and we want to make sure that we use it wisely and take care of some of those sustainable issues facing our state. For those of you joining us virtually, our meetings will be long, be patient with us, but they will be exciting. We have a lot of work to do.

I would like to introduce our Committee staff, our LCB staff. We have Ms. Marjorie Thomas, who is our committee policy analyst; Ms. Jessie Jessica Dummer who is our legal counsel; Ms. Julie Waller is our fiscal analyst; and Christina Harper is our committee secretary.

[Reviewed virtual meeting and testimony guidelines.]

AGENDA ITEM II—PUBLIC COMMENT

Chair Monroe-Moreno:

We do have a lengthy agenda today, so with that let us get started. We will start with our first item of business and that will be public comment. Broadcast Production Services (BPS), please check to see if we have any callers that would like to submit public comment at this time.

Broadcast and Production Services (BPS):

Thank you, Chair. To participate in public comment please press "raise hand in your Zoom window" or star nine on your phone to take your place in the queue.

Caller with the last three digits of 155, you are unmuted on our end. Please go ahead.

Christy Cabrera, Policy and Advocacy Director, National Conservation League:

Thank you, Madam Chair and members of the Committee. My name is Christy Cabrera, and I am the Advocacy and Policy Director for the Nevada Conservation League. We would like to thank the Legislature for your leadership and commitment to fighting the climate crisis. Climate change is the greatest threat to Nevada's future. It is threatening our water supply,

habitat and landscape, extreme heat and wildfire are harming our health, our workers, and our businesses. To meet the ambitious, but necessary, climate goals of 100 percent clean power and zero greenhouse gas emissions by 2050, that were set by Governor Sisolak and the Legislature, we must move away from all fossil fuels as quickly as possible. In order to do this, Nevada needs an updated state of the art electricity grid and the ability to move clean renewable energy across state lines. Today, you will be hearing presentations about the possibility and benefits of a Western regional energy market to transition to allowing us to utilize more clean energy across the West. Regional markets can also help us keep energy costs low, boost our economy, and provide more reliable energy. Nevada families deserve access to clean energy, clean air, and clean environment. Joining a Western regional electricity market will allow us to sell our excess solar to other states. And it will get us closer to achieving our climate and climate reduction goals, while creating a cleaner, healthier state for all Nevadans. We cannot fight the climate crisis without the Legislature's continued leadership and dedication to Nevada's climate goals. Thank you for your time today.

Chair Monroe-Moreno:

Thank you so much for your comments. Next caller.

BPS:

Caller with the last three digits of 732. Please go ahead. Caller, you are unmuted on our end, please go ahead.

Kyle Davis, InterWest Energy Alliance:

Thank you, Madam Chair, members of the Committee. For the record, my name is Kyle Davis, and I am here today on behalf of the InterWest Energy Alliance. InterWest is the regional trade association focused on promoting market development for large scale renewable energy companies including solar, wind, geothermal, battery storage, transmission developers, and manufacturers. We were excited to support Senate Bill 448 in Nevada during the 2021 Legislative Session, and we are happy to hear these presentations from our colleagues expressing the many benefits of participation in a potential Western market. InterWest believes strongly in the importance of joining an expanded regional wholesale electricity market. Issues of Western states are intertwined, and can be best met through collaboration and dialogue principles that were visioned in the passing of SB 448 and the regional transmission task force. As the West experiences a changing climate and legacy resources become less dependable and more expensive into the future, the ability to share generation of all types with neighboring states to utilize the strongest solar and wind on a daily and seasonal basis to an expanded inter-regional transmission and enhanced market competition will both reduce immediate fuel costs while lowering the overall amount of capacity required to be built across the region. Nevada has shown itself to be a leader among its peers through legislation enacted in the past several sessions ensuring that the state will benefit both economically and environmentally from the expanded trading that will take place when Nevada's utilities join a regional transmission organization. InterWest applauds legislators for the bold action in recent years, but I would also like to thank today's presenters for laying out the path that will enable our members to follow through on the implementation of the important policies passed by this body. Thank you for your time today.

Chair Monroe-Moreno:

Thank you so much for your comments. Next caller.

BPS:

Chair, there are no more participants wishing to speak in public comment at this time.

Chair Monroe-Moreno:

Thank you so much. With that we will close our first order of public comment. There will be another section of public comment at the end of our meeting.

We will move on to our third agenda item, which will be an overview of our Joint Interim Standing Committee rules and regulations. We will have staff join us to provide this overview. Ms. Thomas, if you are there? You can begin.

AGENDA ITEM III—OVERVIEW OF THE JOINT INTERIM STANDING COMMITTEE ON GROWTH AND INFRASTRUCTURE WORK PLAN AND MEETING SCHEDULE

Marjorie Paslov Thomas:

Thank you, Madame Chair. Marji Thomas, for the record, with the Research Division of LCB. Today we have prepared a committee brief, which has been uploaded to the materials page of the website for members to follow along. [Assembly Bill 443](#) of the 2021 Session created the Joint Interim Committee on Growth and Infrastructure. The jurisdiction and membership of the standing Senate and Assembly Committees on Growth and Infrastructure are reflected in the Committee. In addition, the Legislative Committee on Energy, which was the Standing Interim Committee was repealed and the duties and responsibilities to that committee have been transferred to this Joint Interim Standing Committee on Growth and Infrastructure.

Those duties include evaluating, reviewing, and commenting on energies and policies in Nevada. The Legislative Commission approved up to five meetings for the Growth and Infrastructure Committee; on page four of the committee brief are the tentative meeting dates. Additionally, the Committee may request up to ten bill draft requests on issues that address transportation and energy. The Committee must conclude its work by August 31, 2022. This Committee considers topics related to transportation and energy which include highways, roads and bridges, mass transit projects, motor carriers, motor vehicles, traffic safety, a lot of energy policy, public utilities, and renewable energy policy and programs, just to name a few.

I wanted to point out that there are relevant reports that members may want to familiarize themselves with, and these are located on pages two, three, and four of the committee brief, and include reports by the legislative auditor, legislative committees, executive branch agencies, and such. If members are unable to access those reports, please let me know. I would be happy to get them for you.

Finally, there are some priority issues of study this Interim and some of those are based on bills that went through during the Legislative Session. Just briefly, the Senate Committee on Growth and Infrastructure was referred 59 bills total and the Assembly Committee was referred 46. Partially that is jurisdiction within each house, some of the measures may not have gone to both committees and may have been referred to other committees, like the revenue committee or one of the money committees, and other policy committees, to include Government Affairs or Judiciary. But several of those bills this Session, which will be studied once again during this Interim related to the Department of Motor Vehicles (DMV) such as funding and modernization, special license plates, transportation, network

companies, towing, traffic safety, impaired driving, and transportation funding. There were several bills related to energy, some of which you will hear updates today, related to energy infrastructure and renewable energy, energy efficiency, greenhouse gas emission, motor vehicle emissions, and broadband access. Finally on page four of the committee brief, is our contact information for staff. If you have any questions, please feel free to reach out to me, or Jessie, or Julie and we would be happy to help you. That concludes my remarks, and I would be happy to answer any questions.

Chair Monroe-Moreno:

Thank you so much for your comments. Members, does anyone have any questions for Ms. Thomas before we move on?

We will move on to our first presentation for the morning.

AGENDA ITEM IV—OVERVIEW OF THE ROLE AND RESPONSIBILITIES OF THE PUBLIC UTILITIES COMMISSION OF NEVADA CONCERNING UTILITY REGULATION AND “ENERGY 101 CONCEPTS”

Chair Monroe-Moreno:

We will have a presentation with the Public Utilities Commission of Nevada (PUCN). I believe we have joining us, Ms. Stephanie Mullen and Mr. Garrett Weir, so if you two are ready the floor is yours and thank you for joining us on our first meeting.

Stephanie Mullen, Executive Director, PUCN

Good morning, Madam Chair and Vice Chair Harris, members of the Committee. For the record, I am Stephanie Mullen, Executive Director of PUCN, and as you mentioned with me is Mister Garrett Weir, our general counsel. Today, we are going to share an overview of the agency's operations and structure including the types of proceedings and industries the PUCN regulates, as well as provide an update on implementation from legislation during the 2021 Session. (Agenda Item IV).

The PUCN is a regulatory agency that ensures investor-owned utilities comply with laws enacted by the Nevada Legislature. The basic regulatory duties, powers, and scope of work are defined by the Legislature and codified in statute. The PUCN regulates approximately 400 investor-owned utilities engaged in electric, natural gas, telecommunications, water and wastewater services, gas and electric master meter services at mobile home parks, and some propane systems. Promoting and ensuring safe utility operations is a foundational PUCN mandate, this includes monitoring gas pipeline safety including monitoring the design, construction, operation, and maintenance of gas systems and underground excavation. In 2021, the PUCN adopted important regulations requiring an annual leak detection survey of all natural gas pipelines. Nevada is the first in the nation to implement such safety regulations. Additionally, the PUCN's rail safety division monitors four disciplines within the state, they are hazardous materials; operations; motive - power equipment; and tracks the continuous involvement in monitoring and oversight of the safety programs help ensure our safe infrastructure in Nevada.

In response to the unprecedented challenges of the Coronavirus Disease of 2019 (COVID-19) pandemic, in 2021, the PUCN maintained the agency's commitment to providing vital public services and ensuring a viable utility regulatory environment. Measures first implemented in 2020, continued well into 2021, and somewhat into 2022, so far. Adjustments included new work from home schedules and remote working procedures.

The Commission adopted the use of virtual video conferencing and other remote technologies to conduct business including pre-hearing conferences, hearings, workshops, consumer sessions, and open meetings. Notably the PUCN was, to our knowledge, the first state utility agency in the country to adopt a framework for holding virtual hearings in contested cases, which involves substantial witness testimony and cross examination on technical subject matter. In accordance with the governor's emergency directives, public commenting requirements were maintained with the implementation of special telephone lines so the public could call in during commission meetings and consumer sessions. Main PUCN office phone lines also continue to be staffed allowing the public to receive needed information and assistance with services provided by the PUCN's consumer complaint resolution division and business offices. Via its website, the PUCN continued to offer many additional services, including access to filings, online forms, links to video and audio, live streaming of proceedings, the PUCN's electronic filing system for submitting pleadings, and other information related to utility regulation. In early Fall of 2021, the PUCN began transitioning to a partial work from home schedule and the public again was allowed to attend PUCN's proceedings in person. Some of the new initiatives such as virtual video conferencing, remote meeting and hearing tools, and call-in lines for public comment have been maintained due to their enhancement of PUCN and operations through increased efficiencies.

I am going to go ahead and move on to the organizational structure, which plays a very important role in meeting requirements set forth by the agency. The 105 full-time employees are contained in two distinct parts within the agency. They are the commission and the regulatory operations staff. The Commission is a quasi-judicial three-person panel appointed by the governor and staggered four-year terms. Our current commissioners are Chair Hayley Williamson, Commissioner C.J. Manthe, and Commissioner Tammy Cordova. They preside over contested cases and make decisions regarding the operations of public utilities. The regulatory operations staff, often referred to as staff, is an independent division that investigates and audits utility operations, and participates as a party in proceedings before the Commission. Careful attention is given to ensure the independence of staff, and the Commission is prohibited from communicating with staff in any manner that undermines the due process rights of other parties. However, because the Commission staff is housed within the same agency, they share certain administrative support for matters unrelated to respective roles as decision maker and litigants in contested cases.

Finally, I just wanted to make a quick note on funding. It is important to note the PUCN is funded through an annual regulatory assessment or mil assessment and does not compete for general funds or money. The mill assessment is an annual collection that is made based on the revenues for utilities that operate within this state using reported revenues from utilities and PUCN anticipated expenditures. We are able to determine what the mill assessment rate needs to be set at in order to meet the needs of the agency. I will pass it over to Garrett Weir.

Garrett Weir, Commission General Counsel, PUCN:

For the record, I am Garrett Weir, general counsel for PUCN. I am going to walk through the types of proceedings the Commission holds and the various types of services the Commission regulates (Agenda Item IV).

Ms. Mullen mentioned the quasi-judicial nature of PUCN, it is an executive branch agency, but it performs a quasi-judicial function of presiding over contested cases. It also performs quasi-legislative functions and adopting regulations. Most of the contested cases of PUCN are applications submitted by utilities. The most prominent of which are rate cases and requests related to resource planning. Resource planning is a process through which the

Commission determines future needs for utility service and approves a prudent course of action for ensuring that utilities will be prepared to satisfy those needs. In a rate case, the Commission determines the cost of providing safe reliable service to customers and sets appropriate rates for the utility to recover those prudently and reasonably incurred costs. Other types of contested cases are customer complaints and show-cause proceedings in which the Commission considers whether regulated entities should be subject to administrative penalties or other corrective action for misconduct. Rulemakings are where the Commission adopts regulations generally following legislative sessions to implement legislation. The Commission occasionally conducts rulemakings pursuant to its general authority to adopt regulations necessary to carry out its duties. The ability to file a petition with PUCN provides an opportunity for people to request general relief in the form of advisory opinions or declaratory orders regarding matters within the Commission's jurisdiction. Finally, the Commission regularly conducts investigations to examine matters related to utility service. The electric sector that the Commission regulates primarily involves two electric utilities in this state that provide regulated retail service. Those utilities are Nevada Power Company in the south and Sierra Pacific Power Company in the north. They both do business under the name NV Energy. The role that cooperative associations provide electric service within the state, the Commission's regulatory jurisdiction is limited to their service territory boundaries. The policy reason for the Commission not having oversight of the terms and conditions of the co-ops electric service is that the co-op is ultimately accountable to its members. There is a political mechanism through which the leadership of a co-op can be unelected if members are unhappy with management decisions in the resulting service and pricing. The electric sector PUCN regularly presides over cases involving rate making, integrated resource planning, and permitting. As previously mentioned, there are many cases implementing numerous state policies and programs related to things like renewable energy development, energy efficiency, and consumer protection. These cases affect the prices that Nevadans pay for electricity as well as the short- and long-term planning obligations for utilities for certain Nevadans. The rates charged to customers of electric service consist of various components intended to recover particular costs. The largest component appears on your bill as electric consumption includes fuel, and purchased power costs, and all other general cost of operating utility not specifically collected by another rate. Other rate components recover costs associated with legislatively mandated programs related to renewable energy, energy efficiency, natural disaster protection, and low-income assistance. The rate set by PUCN allow for recovery of only prudent and reasonably incurred costs plus revenue sufficient to provide utilities with an opportunity for a reasonable return on capital investments. Notably, PUCN is not allowing the energy to earn a profit on fuel and purchased power costs such as renewable energy, power purchase agreements, or on operations and maintenance expenses such as employees' salaries.

Finally, it is important for customers and policy makers to recognize the ratemaking issues are generally zero sum in nature. They are rarely win-win outcomes when parties are arguing about who should pay for costs that were incurred by a utility. Allocating fewer costs to one party will result in allocating greater costs to another. Inevitably the losers in the decision making process will be unhappy with the results causing PUCN to regularly draw the ire of nearly every industry and type of utility customer within the state. For parties to believe that a Commission's decision as inequitable or unlawful there are processes in place to seek an appeal. First at the administrative agency level through reconsideration or rehearing of a matter and then subsequently through judicial review by the state's courts. The PUCN regulates two investor-owned natural gas utilities those are: Southwest Gas Corporation and Sierra Pacific Power Company, which in addition to providing electric service throughout Northern Nevada also offers gas service in the Reno area. For these utilities, PUCN hold proceedings to set rates and to implement legislative

policies such as the promotion of energy conservation and the use of renewable natural gas. The PUCN also licenses as alternative sellers of natural gas to provide service to large industrial and commercial users in the state.

Finally, PUCN oversees gas pipeline safety in partnership with the United States Department of Transportation Pipeline and Hazardous Materials Safety Administration or PHMSA in the Office of Pipeline Safety. As with electric utilities, natural gas utilities recover the cost of purchased fuel, that is the natural gas that they sell to customers on just a dollar for dollar basis. They are not allowed to mark up the cost of natural gas they sell. The return on their investments, are on investments that they have made in the infrastructure necessary to deliver the natural gas.

In the sector of water and wastewater, PUCN's primary regulatory activities include ensuring the delivery of clean, safe, and reliable service to customers at reasonable rates. The PUCN monitors the quality of service, environmental compliance, and financial performance. The Commission fully regulates the rate service quality and service territories of 27 investor-owned water and wastewater utilities in the state serving approximately 23,000 customers. The Commission regulates the service territories, but not the rates or service quality of water and wastewater utilities under the control of certain non-investor owned governing bodies, such as cooperative associations and homeowners' associations.

For rail, as Executive Director Mullen mentioned, the Commission has personnel who regularly perform inspections and have specialized training in the areas of inspection that enforce federal regulations. Those disciplines include operations practice inspection; motive power and equipment, track inspection; and hazardous materials inspection.

Telecommunication is largely a deregulated utility service. The Commission does fully rate regulate certain small-scale providers within the state in rural areas. There are ten of those and the rest of the Commission's 322 telecommunications providers are comprised of incumbent local exchange carriers and competitive suppliers. The Commission does not rate regulate those entities. It regulates programs that some of those entities are able to draw from federally and at the state-level. However, for example, there are 30 eligible telecommunication carriers in the state that are able to access federal lifeline program funding; 26 of those receive federal lifeline support to provide discounted telecommunications services to low-income customers including mobile services and broadband access. We have nine eligible telecommunications carriers receiving high-cost support in this state to subsidize the build out to more rural areas where the cost of providing service is more expensive.

Utility regulation continues to evolve with the development of new technologies, changing customer preferences, and ambitious public policies intended to advance the safety and reliability of service as well as promote conservation, environmental protection, and economic development. As a result, PUCN's duties expand every year and the issues before the Commission continue to grow in complexity. We are constantly addressing exciting, nuanced issues that affect all of Nevada's residents and visitors. It is often difficult for PUCN to arrive at outcomes that please everyone. But the people and processes of the agency are focused on achieving evidence-based decisions that equitably balance the interests of utilities and consumers. The PUCN embraces its changing role, which now includes facilitating innovation where appropriate to advance the public interest. Increasingly, the Commission is faced with unprecedented proposals that require problem solving and thoughtful consideration of costs, benefits, and risks to advance public policy while protecting ratepayers. My portion of the presentation is concluded. I am going to hand it back to Director Mullen who will be providing a brief update regarding the Commission's

implementation of legislation from last Session with the exception of SB 448, which I will address later during agenda item six.

Stephanie Mullen, Executive Director, PUCN

For the record, Stephanie Mullen, Executive Director of PUCN. Thank you, Garrett, and as you mentioned I was going to provide a brief overview of where we are at with the recent legislation passed.

I will go ahead and start with SB 14. This sets into law collaboration among government agencies regarding emergency resource plans. This bill requires that on or before June 30th of each year the Public Utilities Commission, the Division of Environmental Protection of the State Department of Conservation and Natural Resources, and the Governor's Office of Energy coordinate with the Division of Emergency Management to annually compile a list of each utility and provider of new electric resources is required to submit a vulnerability assessment and emergency resource plan.

Senate Bill 18 significantly updates the Commission's maximum administrative fines for violations. The fines increased from a maximum of \$1,000 per day to \$200,000 per day with a cumulative capital of \$2 million for gas storage or transportation violations of a commission regulation. For other violations of rule, regulation order, or providing materially inaccurate or misleading information the daily cap is \$100,000 per day and \$2 million for a series of violations. If the Commission determines a violation was willful or detrimental to public health or safety, the caps are \$200,000 per day and \$5 million dollars. To balance out the increase maximum fines, the law requires the Commission to consider certain factors in determining the amount of administrative fines, such as the circumstances of the violation including the impact whether financial or public health and safety; willfulness of violation; the good faith of disclosure of the violation; the good faith to achieve compliance after the violation; the history of the compliance or noncompliance; the economic benefit of the violation or lack thereof to the person charged; the amount of administrative fines assessed previously by the Commission for similar violations; and other factors as necessary to determine the reasonableness of the administrative fine.

Senate Bill 59 clarifies that briefing schedule for petitions for judicial review of decisions by PUCN is limited to an opening brief and responsive brief only, and that no reply brief maybe filed. The clarification is significant because the Commission is exempt from the judicial review process of the Nevada Administrative Procedures Act that permits reply briefs to be filed.

Senate Bill 77 exempts from the requirements of the Open Meeting Law certain meetings conducted by a public body engaged in pre-decisional and deliberative discussions relating to an action under the Federal National Environmental Policy Act of 1969, including without limitation the review and discussion of drafts of environment impact statements describing the environmental effects of proposed actions within the jurisdiction of the public body.

Senate Bill 387 requires the Commission to adopt regulations to establish rate caps and certain limitations on charges for an inmate calling service and to approve a schedule or tariff that exceeds such a rate cap or fails to comply with the limitation prescribed by the Commission. The Commission is also to review the program annually and revise rate caps or limitations if it found necessary to do so. The Commission initiated a rulemaking and Docket Number 21-12013 to implement this bill. The workshop is set for March 17, 2022, at 10 a.m.

Assembly Bill 154 modernizes notification by public utilities to include electronic notices. Assembly Bill 154 further eliminates the requirement of fluorescent bill stuffers for notices and statements, and requires that rate adjustments being clear and bold text regardless of the method of transmission.

Assembly Bill 173 removes the exemption from licensure as a professional engineer for an employee of a public utility company that supplies natural gas and is subject to the jurisdiction of PUCN if the employee is engaged in a type of work for a public utility company that PUCN has determined requires a license. Prior to the passage of AB 173, employees of inter-state or intra-state public utility companies were exempt from licensing requirements while they were engaged in work for those companies. The Commission opened a rulemaking and Docket Number 21-06039 to implement this bill. A proposed regulation is pending and has been submitted to LCB for review. This concludes this portion of our presentation. Mister Weir and I are available should you have any questions.

Chair Monroe-Moreno:

Thank you so much. I know for all of the members of this Committee that have also served during the regular Session on Growth and Infrastructure, but you cannot have enough information, so I appreciate the update and for those watching that may not have known what PUCN does, now you do. Members do you have any questions for the presenters with the information presented? If you would just raise your hand. Assemblyman Watts.

Assemblyman Watts:

Thank you very much Madam Chair, and thank you Miss Mullen and Mister Weir for the presentation. You mentioned during the presentation through these dockets a lot of new emerging issues. You spoke with great detail about the implementation of legislation, are there other emerging issues that are coming up through the Commission and specifically, I know the Commission has started to integrate climate goals into its organizational planning. If you could speak to any emerging issues, and how climate and our state climate goals are starting to be integrated into the considerations of various utility dockets. I think that would be really helpful. Thank you.

Garrett Weir, Commission General Counsel, PUCN:

For the record, this is Garrett Weir. Thank you, Assemblyman Watts. I guess first you hit directly on one of the issues related to climate goals, is the way in which the Commission and utilities need to plan long term to achieve those goals. That is something that is requiring us to look at things differently than we have historically. For utilities to think about carbon emissions and what it will take to allow systems to reduce their reliance on those nonrenewable resources. When that effects more than just the electric sector, the natural gas sector obviously relies on a carbon emitting fuel and the Commission is undertaking an investigation right now that is pending at the Commission, Docket Number 21-0502. We are looking at the long term planning with the questions that arise from climate goals. Then frankly every resource planning proceeding we have for electric utilities is increasingly taking into account those climate related goals. There are new components it seems almost every legislative session that are added to the resource planning process. For the first time we had a comprehensive distributed resource plan that was examined within this last resource plan that was impartially ruled upon. There is a recent transmission component that is largely motivated by the ability to access renewable resources in other markets. Then there is electric vehicle infrastructure planning, another component of the resource plan process that has been incorporated. But from a system operations standpoint, the very fundamental part of regulating utilities that is a major, those are changes that we are

seeing regularly. And somewhat relatedly we see customer preferences changing where certain customers are wanting to receive service that is carbon free, and the resources relied upon. We are also seeing customer preferences or expectations change as to the pricing, the way in which they take their utility service. Those are a few of the changing innovative concepts that are coming before the Commission. I have mentioned a lot of the proposals are unprecedented, not just in Nevada, but anywhere, and we are on the forefront of some really interesting times, and it is exciting for us, but it is challenging for sure.

Assemblyman Watts:

Thank you very much. Thank you for the question, Madam Chair.

Chair Monroe-Moreno:

Thank you. Members any other questions for our presenters before we move on?
Senator Brooks.

Senator Brooks:

Thank you, Chair. My question kind of builds upon Assemblyman Watts' question and the added roles and responsibilities the Commission has over the last several years, and I know the agency is funded through the mill rate assessment and not in the general fund. Is the mill rate sufficient to fund the agency based upon the added roles and responsibilities the Legislature and the industry have created for the agency over the last several years?

Stephanie Mullen, Executive Director, PUCN:

Stephanie Mullen for the record. Thank you, Senator Brooks for the question. At this time, I think that our mill is currently at 3.13, is what we set it at last May. Our cap is 3.5, so we are well under our cap at this moment, and all of this is subject to change based on the needs of the agency; bills that are passed, positions that we gain, fluctuating gas prices— with gas prices as high as they have been, we have been able to collect what we need but it is hard to say. I think that is up to the Legislature and the tasks we have moving forward. I do not know. Mister Weir do you have anything to add.

Garrett Weir, Commission General Counsel, PUCN:

We do our best, as Miss Mullen mentioned, to ensure that we can fund the agency. There were some benefits from a cost standpoint given that over the pandemic we certainly had some reductions, I believe in costs. We also saw revenues increase for some utilities because of the price of natural gas increasing, and again that mill assessment is applied to revenues not the net profits of a utility. But certainly, we have been exploring how we can ensure that long term the agency can be adequately funded. There are some statutory restrictions that could in the future jeopardize the agency's ability to be adequately funded if things should change. Right now we are not facing a crisis, we certainly want to avoid a crisis in the future, and so we have been looking at not just possible changes to the way that the mill assessment is designed right now in statute, but even trying to be creative and examining how we might be able to fund the agency more through fees, filing fees, other things that could reflect more, could create more revenue based on the extent to which the agency based, basically on the types of work the Commission is doing. The applicants paying a more proportionate share of the agency's costs as a result. But those are things we are exploring, and I would not be surprised if you see a proposal from us as the Session approaches to look into statutory solutions to ensure that we have the resources necessary in the future to address this growingly complex field.

Senator Brooks:

Thank you, I appreciate that.

Chair Monroe-Moreno:

Any other questions from members. Seeing none, I thank you both for the presentation. I know we will be seeing you a little later in our agenda.

AGENDA ITEM V—UPDATE OF THE IMPLEMENTATION OF THE EXPANDED SOLAR ACCESS ENERGY PROGRAM

We will close the presentation on agenda item four and move on to agenda item five, which will be an update of the implementation of the expanded solar access program, also called the Expanded Solar Access Energy Program (ESAP). As many of you may recall during the 2019 Legislature, we passed AB 465, which required certain electric utilities to offer an expanded solar access program to residential customers and to certain nonresidential customers who consume less than 10,000 kilowatt (KW) hours of electricity per month. The PUCN was required to adopt regulations establishing the standards for the program. First, we will hear from Miss Cynthia Alejandre with NV Energy about the implementing of the program and following her presentation will be Karlene Johnson and Roberta Tapia with the Employment Security Division (ESD) of the Department of Employment, Training and Rehabilitation (DETR) to provide an overview of the workforce development component of the program. Cynthia the floor is yours.

**Cynthia Alejandre, Director, Contract Management and Special Programs,
NV Energy:**

Good morning, Madam Chair, Vice Chair, and members of the Committee. My name is Cynthia Alejandre, and I am the Director of Contract Management and Special Programs here at NV Energy. I am very excited to be here with all of you this morning and provide this update on the expanded solar access program, where we stand on the implementation, and what our next steps are (Agenda Item V A). As Chairwoman Monroe-Moreno mentioned, [AB 465](#) was enacted in 2019 which required NV Energy to offer this program to certain residential and nonresidential customers. That essentially breaks up into three types of categories: (1) low-income customers; (2) disadvantaged businesses or nonprofit organizations; and (3) eligible premise customers as defined by the legislation. NV Energy was at the forefront of supporting this legislation in 2019, as well as the number of stakeholders which include the Organizing Alliance Nevada Conservation League and a few others who participated in the rulemaking for the expanded solar access program or ESAP. The staff intended to offer residential and nonresidential customers the opportunity to have their electric consumption come from the next of utility large scale renewable energy projects as well as these community-based solar resources, which are projects that will be located in certain areas within this state and are no greater than one megawatt (MW) in size. The great part of ESAP is that it allows for these customers to get these type of renewable energy resources into their home without actually requiring that solar panels are installed.

To give a quick procedural overview, on December 1, 2020, NV Energy filed with PUCN, our ESAP application, which outlined the initial step implementation plan for 2021. This is in Docket Number 20-12003. The participating parties in this particular docket were the Bureau of Consumer Protection, our staff that works with PUCN, Sierra Club, MGM Resorts International, and Caesars Enterprise Services, LLC. As you can see here the quick schedule, we had testimony filed in March. Our participating parties also filed their

respective testimony on April 22nd. We filed our rebuttal testimony May 7th, but the hearing was ultimately held on May 22, 2021. We did receive final approval of a plan with certain modifications on June 29, 2021. I also wanted to highlight that at the same time, we were also working and participating in Docket Number 19-06028, which enacted regulations to carry out AB 465. These regulations were finalized as of December 9, 2021. I briefly mentioned earlier, ESAP contains three customer categories in which eligible applicants can apply to. We have: (1) a low-income eligible customer category; (2) disadvantaged businesses or nonprofit organizations category; and (3) the eligible premise customer category. As you can see here, there is a particular criterion that needs to be met by the applicants to determine which category they would fall under for ESAP. I also want to note that the low-income eligible customer category is the only category that is guaranteed a lower rate per the legislation. Furthermore, each category has certain capacity amounts allocated as outlined per AB 465. For Nevada Power Company, the total capacity allocation is 240,000 MW hours and for Sierra Pacific Power Company a total capacity allocation is 160,000 MW hours. These capacity amounts are further broken down by each of the three categories that I described earlier, and you can see here on the chart how they are broken out. For example, for Nevada Power Company, a low-income eligible category has 60,000 MW hours allocated to that particular category from the 240,000 MW hours total. We break it up here so that it is easy to see. The other thing that we wanted to make sure was not to exceed the capacity amount that is allocated too so that we do not contradict or go above the limits as allowed by AB 465. We have a 10 percent capacity reserved for each category. That means that although this low-income category under Nevada law is 60,000 MW hours, keep in mind a 10 percent reserve, so the total ends up being closer to 54,000 MW hours. That is just to make sure that customers who are part of this program whose energy needs increase in that particular year, we do not exceed that limit.

Based on the ESAP enrollment timeline we started our community outreach on August 2nd. The application submittal period for customers to enroll in ESAP was between September 1st and October 31st of 2021. We reviewed applications during this period and we had an extra month to process any applications that were received towards the end of October. The selection process occurred between December 1st and December 10th. Results of these applications, whether they were accepted into ESAP, occurred between December 11th and December 31st, and the program was effective as of January 1st of this year.

We do have a few regulatory requirements which I will get into, but we do have an information report where we will provide this information in further detail that is due March 1st of 2022. As I mentioned, we commenced public outreach after August 2, 2021, with the launch of the website and dedicated flyers with information on how to nominate these community-based solar resources. During the timeframe of ESAP enrollment and nominations we began statewide marketing efforts, which included print, media, radio spots, billboards, bus shelter, social media, and direct email to our customer base, particularly those that may be eligible under these categories. A few examples of our marketing efforts include a copy of our print media. Some of this information was provided in Spanish, which was very helpful. We also used billboards, bus shelters and social media. It was very exciting to drive and see ESAP on the billboards and social media.

Applicants submitted their application and the related documentation for whatever category they were applying for occurred between September 1st and October 31st. Customers could apply by traditional mail, or request an application from NV Energy by telephoning or emailing, or ESAP at nvenergy.com. A person could also apply online by using NV Energy's website, which was utilized by many applicants. When applications were received, they were reviewed to determine eligibility requirements, or if there were deficiencies in their applications. Depending on whether a customer was eligible, we would provide them with

either a notice of eligibility or a notice of deficiency. The notice of deficiency focuses on a customer not providing supporting documentation as outlined in the application, or an incorrect application.

Next, there is a table with the final customer enrollment. A low-income eligible customer is where we received the most interest, which is what we expected given that this is category guarantees a lower rate. We did receive a total number of 1,672 applications, and 1,175 applicants were deemed eligible. This means that the other customers either did not provide the documentation needed, or they did not meet the eligibility criteria. Out of the total amount that were eligible, a total up to about 16,215 MW hours of consumption for that category. When I mentioned the capacity allocations for each category as outlined by AB 465, that is where the 60,000 MW hour allocation goes to, not including the 10 percent reserve.

In the community-based solar resources, ESAP is a two-pronged plan. Customer enrollment is one part and is focused on getting customers to participate in ESAP, and the second part is the community-based solar resources. This is what actually launched as of August 2, 2021. Per AB 465, we are required to build a minimum of three, but no more than ten community-based solar resources in each service territory. On August 2nd, we launched our first nomination period. We received a total of 13 nominations for southern Nevada and seven nominations for northern Nevada. We were very excited to see the interest in the sites that were nominated, especially given that we had about a month from when the order was finalized to get everything ready and to launch our first part of ESAP. The timeline of the community-based solar resources process is as follows: nomination period ended September 10, 2021; NV Energy conducted a scoring of all the nominated sites by October 25, 2021; the shortlist of the selected sites was published on October 26th; and between October 26th and November 8th the community voted on the selected sites. The community have been engaged as much as possible, and given that it was the first round, we were very excited to see the total number of nominated sites that we received. The voting period for the top sites concluded as of November 15th and those were announced on our website. Between now and Spring of this year we will be finalizing host site negotiations with the two sites that were selected and voted by the community and ultimately filed with the Commission. We have requested to move forward with constructing these Community-Based Solar Resources (CBSR) in northern Nevada and southern Nevada with the goal of having these two sites completed by the first quarter of 2023.

The shortlist of selected sites in southern Nevada included Freedom Park; Lorenzi Park; the Latin Chamber of Commerce; Mountaintop Faith Ministries; NUWU Art Studio; and the Howard Lieburn Senior Center. In northern Nevada, the shortlisted sites are the City of Reno, Moana Center; Swope Middle School; and American Iron Gym and Barbell. As I mentioned, our customers were tasked with voting for these as required, and on November 15th, people ultimately published the two selected sites, which were Freedom Park in southern Nevada and Moana Center in northern Nevada. An existing CBSR in southern Nevada is located on Mojave High School in North Las Vegas. This is the first CBSR that is a part of ESAP, even though it was approved in Docket 20-07023 as a pilot project. The CBSR is a carport. It contains about 1,000 solar panels and it generates at least 773 MW hours per year. We partnered with the Clark County School District to enter into a 25-year lease for this project and it is very important, because this project directly interconnects to our distribution grid and supports customers that were selected to participate in ESAP. Not only that, but this drives the development of more clean energy, as has been mentioned. Our customers are looking more towards environmental benefits, and it also provides economic benefits to Nevada. Bombard Electric was the primary contractor for Mojave Solar, and we had a worksite agreement with the International Brotherhood for

Electric Workers Local 357 and 396 Their construction workers are certified by a DETR program This project has been operational since December 21, 2021. We are very excited about it.

Now our next steps. We are required to submit an information report regarding the ESAP program on March 1st, which must contain information on the total number of customers and how many applications we received. In future timeframes, the report must include the number of customers who voluntarily leave the program because the only way for a customer to leave ESAP is for them to voluntarily request it. That is one thing I would like to mention, any customer who was deemed eligible and is set at ESAP is in the program from January 1st through December 31st, regardless of whether certain circumstances occurred during that year that may no longer make them eligible for the future year. We are actually working on preparing that information now to file on March 1st. We also have a recovery of assets request due March 1, 2022. For approval to recover the incremental spend that went into implementing ESAP, as well as other ESAP items such as the Mojave CBSR information. In the CBSR timeline, we do have an ESAP plan amendment that we expect to file in Spring of 2022 to request approval of the two CBSR sites that were selected by the community, which are Freedom Park and the Moana Center in addition to other items that may improve the implementation of the second round and future rounds of ESAPI look forward to any questions anyone may have.

Chair Monroe-Moreno:

Any questions before we move on to the second part of this presentation.

Assemblyman Watts:

Thank you very much, Madam Chair. Thank you, Ms. Alejandre for the presentation. I appreciate it. I have a couple of questions. First, I would just like to go back to the application figures. It looks like as you said, there was the most interest in the low-income eligible customer category. But in general, it looks like the applications and approvals came in well below the dedicated capacity. I have a few questions about that, you mentioned some of the marketing efforts that were undertaken, and I was wondering if you have a plan to survey some of those who signed up to see what worked and what did not. We could better sense of how the process works to get more people into these different dedicated areas.

Cynthia Alejandre:

I believe we will be having a survey, of some sort, where we ask these particular customers. We are still working on that. We did see most of the spike in applications when we conducted direct email. That is certainly something that we are working on with our corporate communications team, our director, our customer operations team to figure out how to make that a more directed effort, since we did see a lot more interest once we sent that out. We are also working with our external agency to fine tune and determine now that we have seen this first round. What worked? What did not work? How can we make it better? We are in the process of determining how to do that. I think it is important to note that it is the first year of the program and it is meant to grow that capacity and the total capacity for the program. It is not an annual capacity that increases every year by that same amount, so we are very motivated to increase that number, but at the same time I understand that it was the first year of the program. As people start talking about it, sharing with their family, sharing with their friends, I think we will be seeing a spike of interest in these categories.

I also want to highlight that for the disadvantaged businesses and nonprofit organizations, that 10,000 KW cap did limit the number of those type of customers that could qualify for that category, so the applicants that exceeded that 10,000 KW per month consumption ultimately make them ineligible for this program. It is a learning experience, and we are certainly looking at our marketing efforts and how to improve those. We were excited to see a lot of this information in our various local government officials' newsletters. I know that was shared a lot as well. I think at this point it is trying to figure out what worked, what did not work, and how can we improve upon that, understanding that our customers maybe had other things going on during the summer. I only bring this up because I know in northern Nevada there were a lot of other external factors that maybe took more of our customers attention. Maybe they did not see some of the social media or did not pay particular attention to it. We are trying to figure out if we are able to get out in the community in person. There were several events in Northern Nevada we were not able to make due to their being canceled. We are currently working again with our corporate communications team right now to figure out what events are coming or what can we do. Can we be there in person? We did have a lot of virtual events where we presented this information, but we do think that having a more of an in-person connection where we are able to walk a customer through the application and let them know exactly what we are looking for. That is probably the best way to actually get those applications in our hands.

Assemblyman Watts:

Thank you for that additional information. I certainly appreciate that you were getting the program set up and approved, and then had to quickly put the application out there, and definitely appreciate the fact that word-of-mouth will help. With the wildfires and the pandemic, it seems to always put a crimp on our plans for in-person events and certainly have posed their own challenges. I also had to applaud you with a simple process. Both of my parents actually applied for and were approved for ESAP in two different categories.

Cynthia Alejandre:

That makes me happy to hear.

Assemblyman Watts:

I definitely did try and get the word out as well. The other question that I had was around the guaranteed lower rate for the low-income eligible customers. Could you give us a little bit more information on that and how that is determined? Any factors in that and if you have got it, what that lower rate is.

Cynthia Alejandre:

Yes. I want to make sure I do not misspeak, but I know what is essentially called ESAP rider is still with the Commission to get finalized and approved. The way that it works, AB 465 provides for in the regulations, the ESAP rate is a component of our deferred energy adjustment accounting number and our base tariff energy rate. What the ESAP rate will look like is going to be 70 percent of that portion and 30 percent of the utility scale in the CBSR costs, for lack of a better word. Right now, we filed and I will provide the information for Nevada Power; expanded solar energy rider our rate is 0.04717. That would be for the eligible premise category customer. I want to be clear though is that number that I gave you, the 0.04717, is not going to replace the rate. Rather what customers will see on their bill is a credit. For example, if the existing NV Energy rate you are paying is 60 and you are under the ESAP program and it is 0.04717, you will get credit for that difference. Your consumption will be multiplied by that difference, and you will ultimately be provided with

that credit. Right now, what we are seeing is that everyone in ESAP will be receiving a reduction. The only difference is that the low-income discount is guaranteed to be lower even in other categories, or to be more expensive based on, you know quarterly updates or once cost from these CBSRs start to be part of it. I am certainly not the expert or subject matter expert on our rate. I can certainly get with anyone at a later time, if requested and if desired, with our rates team, that can provide you much more of a deeper dive as to how that works.

Assemblyman Watts:

Thank you, I appreciate that, and the big picture is helpful. I am just trying to understand a different factor in terms of the large scale resources through unity based resources. The pool of approved customers may factor in there. That is extremely helpful. Madam Chair, if I may have one more question, thank you. I just wanted to follow up on the community-based sites. In your presentation, I believe you noted that there were at least three and no more than ten potential sites. It seems between Mojave and the other two, that are going through the approval process, that is three, and so I was just wondering if there is anything you can share about the timeline or consideration of eventual additional community-based sites to be considered.

Cynthia Alejandre:

Yes, absolutely. The minimum is three, no more than ten is for each service territory. In southern Nevada, assuming that hosted negotiations are successful with the City of Las Vegas, and we receive an approval to move forward with that CBSR, that will be two in southern Nevada. Moana Center in Reno will be the first one in northern Nevada. Given that this the first time, we wanted to make sure that we understood what the process would look like, what type of nominations it would receive given that we did receive a substantial number of nominations. I was very excited to see that number. We do feel confident that as this program keeps growing, with more information being provided, and a year-round process. As I mentioned, we launched the nomination period on August 2nd, which is the same time that marketing launched because you only had about a month to get everything implemented, or at least ready to get that going as of August 2nd. Now that we have more time to promote it, we do think we will see more of these nominations come in this next round. The dates remain the same. We expect to launch the nomination during the same timeframe as last year, and we are hoping that with marketing earlier we will get more of these nominated sites. The timeline will essentially remain the same. We did move forward just one location in each service territory because we were conscious of the number of applicants we were receiving. These costs ultimately will be recovered. We want to ensure that we are not possibly impacting that rate by adding more CBSRs at once and then possibly spreading them out as customer enrollment increases. Some of the sites that were shortlisted and not voted on have expressed interest in doing it again. I do think that we will be seeing a lot more interest this go around. Based on that, the number that is shortlisted might increase. We will also be in the process of our customer enrollment period to be able to gauge what that looks like and the last thing you want to do is implement five at once. That could ultimately impact the ESAP rate for ESAP customers.

Assemblyman Watts:

Thank you very much, Miss Alejandra for all that additional information. I appreciate it and again completely appreciate the idea that now the program is set up, the marketing is an ongoing process, and it is helpful to understand the base nature of the applications both for customers and for the community-based sites. Thank you, Madam Chair, for the indulgence of all the questions.

Chair Monroe-Moreno:

Thank you. Assemblyman Ellison, did you have a question?

Assemblyman Ellison:

Thank you, Madam Chair. Mr. Watts hit most of that stuff, so I appreciate that now. I will send my questions over on email. Thank you.

Chair Monroe-Moreno:

Thank you. Members, any other questions? We will move on to the second portion. We will have DETR join us to talk about the workforce development component of this program.

Elisa Cafferata, Director, DETR:

I am Elisa Cafferata, Director of DETR. We are very excited to be a part of this project. I am joined this morning by Chris Sewell, who is our Deputy Director and Karlene Johnson, who is our Deputy Administrator on the workforce side. We are the cheering section this morning because we are excited about it. We are here to answer questions if they come up on our involvement. This project is going to be presented by Roberta Tapia, who is the Program Specialist. I will turn it over to her, and we have a presentation that we will share.

Roberta Tapia, Program Specialist III, Workforce Investment Support Services, ESD, DETR:

Good morning, Madam Chair, and Committee members. For the record, I am Roberta Tapia. I am a program specialist at DETR, the division is ESD. I work for the Workforce Investment Support Services Unit. This presentation seeks to provide an overview of DETR's role in the expanded solar access program or ESAP (Agenda Item V B). The ESAP directed DETR to create a workforce development plan to establish the Solar Workforce Innovations and Opportunities Program (SWIO) and you will see the acronym throughout the presentation, but I will try my best to spell it out. It is SWIO in the presentation.

This workforce plan was created in collaboration with representatives from the IBW, the International Brotherhood of Electrical Workers, Locals 357, 396, and 401. The group also included the Electrical Joint Apprenticeship Training Center in Southern Nevada, and in Northern Nevada—the Northern Nevada Electrical Training Center, and representatives of NV Energy as well. Meetings began the first week of September 2020, and resulted in establishing position titles, pay, and minimum qualifications, with variations between the regions. In the South, the job classification would be that of solar panel installer, whereas in the North the construction wireman classification would be used as the entry level pre-apprenticeship position that would provide exposure and experience to program participants.

The application process is detailed in the prospective training center websites and can include applications, transcripts, assessments, and interviews. Major programs and services to assist candidates include job matching, workshops, assessments, and referrals to supportive services, as appropriate. The Career Enhancement Program or CEP provides funding for short-term training and work-related items necessary to begin work. As we met, we also identified possible career paths such as telecommunications, residential, or outside linemen. Throughout the meetings, the Unions also confirmed that participation in this program would provide valuable experience that would be considered when applications were made for apprenticeships. The working relationships have expanded beyond SWIO and have resulted in job orders for positions in Wadsworth, Battle Mountain, and Fish Springs.

A summary of the actual program. It provides for the development of this SWIO, including a workforce plan that lays the groundwork to introduce Nevadans in low-income communities to employment opportunities in solar installation occupations by providing information, training, and job placement. This is accomplished through the use of pre-apprenticeship, entry level positions with a recruitment focus on underserved, underrepresented, and low-income members of the community. Our recruitment was determined through notification of new projects by NV Energy would alert DETR to develop a customized recruitment plan along with the IBW and the Joint Apprenticeship Training Centers. The recruitment program would be tailored to meet the project specific number of candidates needed, and deadlines would consist of utilizing options such as social media, radio, and television; directly communicating with community resources such as Nevada Partners, Hope for Prisoners, veterans' organizations, and faith-based organizations. Referral candidates were made to Nevada JobConnect offices, which are traditionally located in diverse low-income communities. Employment representatives screen, utilizing the skills, knowledge, and abilities provided and identified by the IBW.

How do we review the candidates work history? Resumes and assistance to ensure that the referral was appropriate. During the evaluation, interview staff explain potential apprenticeship opportunities, the minimum qualifications, and review position descriptions to provide a realistic view of what the position involves. One of the requirements for the positions is an OSHA 10-hour certification. This training would be funded through the career enhancement program. As far as the titles, compensation, and benefits that information was provided by the Union in the South, the Local 357 choose to use the solar panel installer position and in the North, Local 401 used the construction wiring position. Benefits include full medical and pension. The plan also provides for reporting of aggregate workforce statistics that is due to NV Energy this month. We did put the planning into action with the first project at Mojave High School. It was approved in December 2020. Request for proposal bids were due March 2021, and its selection was made in April of 2021; NV Energy briefly reported on this. The request for proposal did require the bidder to participate in SWIO by including at least one employee per five and showing that at least 50 percent Nevada residents. This project, as previously explained, called for the installation of solar panels on a newly constructed parking structure with an anticipated need of 15 total solar panel instructors. The contractor selected was Bombard Electric. For communication, DETR collaborated with the IBW local business manager to determine the referral process and minimum qualifications. The Department of Employment, Training and Rehabilitation created a job order with the input provided. The selected candidates in need of the OSHA 10 certification were enrolled in the career enhancement program, scheduled for training, and provided payment to the training provider for the course. With the training complete, the candidates' names, applications, and copies of the OSHA 10 certification were forwarded to the local IBW and names are provided to their dispatcher. The positions that were utilized were 3 based on the need for 15 installers and using the 1 to 5 ratio. Bombard Electric did commit to the three positions. They would have taken a fourth candidate, however, that candidate declined the opportunity prior to beginning the position. The benefits did include paid health insurance and pension. This slide shows the flyer announcing the career opportunity, identified the zip codes considered, and provided instructions on how to apply. It was posted on Facebook and Twitter. It was also distributed to Nevada Partners and Hope for Prisoners. The Department of Employment, Training, and Rehabilitation JobConnect received 13 applications, 6 were qualified on the minimum requirements and resided in the designated zip codes. The seven remaining applicants did not reside in the zip code areas and were contacted by phone and email to determine further interest should a project come to their area. Of the six that met the initial qualifications, two did not respond to follow up inquires. The remaining four candidates met the requirements, including an interest in the apprenticeship program and self-attested to

having good math skills. While this was not a requirement for the entry level apprenticeship solar panel installer position, it would later be a requirement for apprenticeships and would be further assessed at the appropriate time. The Union application was sent to all four applicants; however, one did not start the project. That left three applicants. One of the three applicants already had the OSHA 10 certificate. The other two enrolled in the career enhancement program, scheduled and completed the training on September 4th and 5th. All were high school graduates. Prior positions held were landscaping, handyman, driver, and concrete laborer. All those positions were at lower pay than the solar panel installer. On-boarding began by having the candidates report to the Union to complete personnel forms which included membership in the Union benefit and pension forms. The three participants reported for a one-day safety orientation at Bombard Electric and reported to the job site the next day. We received weekly progress reports from Bombard with attendance records and general project updates. The end of the project happened sooner than anticipated. It was a shorter duration than anticipated based on the draft timeline provided. Originally, it was to be ten weeks for the solar installation to be completed. It was accomplished in five weeks. This part as follow-up; we did reach out to the remaining candidates to try and assess their interests in the partnership. We were only able to contact one of the three, and he is on the books for the projects, but has moved on to other positions in the meantime. This slide shows an item from the governor's newsletter of November 11, 2021. The gentleman in the neon green t-shirt and the one with the neon green vest and a hard hat are two of the three participants. Consideration before the next project include planning for gaps in candidate's participation. There were some gaps during this project as the contractor was waiting for materials. What we can do with those gaps would include having participants return to a JobConnect office to receive additional services which could be the provision of employment services such as conducting assessments before the apprenticeship applications, providing mock interview practices, and assisting with any resumes. We have made contact with the Union representative and once the next request for proposal goes out for the Freedom Park project, we will begin meeting again. This is set for Spring of this year. That concludes my presentation. My contact information is there on the screen if you should have further questions or need information. I am ready to accept questions at this time.

Chair Monroe-Moreno:

Thank you so much for the presentation and the information. It was exciting to watch that first project go up and hear feedback from the students and staff at the high school. Otherwise, I do not think they realized how truly important it was for the surrounding community. Thank you so much for the presentation.

Members, any questions for DETR about the program? I do not see any raised hands, thank you again. We will continue to work and provide even more job opportunities as this program grows throughout the state. Thank you.

We will close agenda item number five, and move on to agenda item number six.

AGENDA ITEM VI—UPDATE OF THE IMPLEMENTATION OF SENATE BILL 448 (2021)

Chair Monroe-Moreno:

As you all know, energy is a hot topic. During the 2021 Legislative Session and will be again in 2023. The bills passed in the Session continued to examine the energy needs of the citizens of Nevada and particularly SB 448, which made various changes to energy regulations, policies, and programs. Some provisions in the bill require PUCN to open a

rulemaking and/or investigatory docket. We will hear the status of those dockets and welcome back.

Garrett Weir, Commission General Counsel, PUCN:

Thank you, Madam Chair, and members of the Committee. I am Garrett Weir, General Counsel for PUCN. I will try to be brief in providing an update of the Commission's implementation of SB 448 from last Session (Agenda Item VI). I am sure you are aware that is the omnibus energy bill sponsored by Senator Brooks that includes various components and provisions in the bill—requirements related to transportation electrification transmission planning. There are some other resource planning provisions that I will address as well, including a reopening of the economic development electric rate rider, also discussion of a process for facilitating the state's entrance into a regional transmission organization. There are a few other miscellaneous clarifications and revisions, as well. Regarding transportation electrification, the bill breaks that policy into two components. You have a requirement for an initial up-front transportation, electrification plan, or a plan to accelerate transportation electrification in Nevada that is Section 49 of the bill. The section required NV Energy to file a plan by September 1, 2021, and that upfront requirement was a fast-tracked process. The Commission was required to review and decide on that plan within 90 days, and it is pretty prescriptive as to what is included in that plan including the types of projects and the dollar amounts it explicitly limits or identifies. The dollar amount is to not exceed \$100 million. The types of projects addressed in that plan include an interstate corridor charging program; an urban charging depot program; a public agency electric vehicle charging program; a transit school bus and transportation electrification custom program; and an outdoor recreation and tourism program. On November 30, 2021, the Commission issued an order modifying and accepting NV Energy's proposed plan that contained all of those components. The Commission found that the modified plan checked all the boxes required by the legislation. Yesterday, the Commission at an open meeting did reaffirm its order regarding a couple of requests for reconsideration that had been filed, but as a result we now know what the final order and version of the modified plan is going to look like. That is the upfront component of transportation electrification that is required by SB 448. The other requirement is related to transportation electrification as outlined in Sections 14 and 40 of the bill. The bill requires ongoing incorporation of transportation electrification planning into the triennial integrated resource planning process that the Commission undertakes. The rulemaking that is addressing these requirements to incorporate a transportation electrification plan into the distributed resource planning component of the Integrated Resource Plan (IRP). That rulemaking is PUCN Docket Number 21-06036. The status of that rulemaking is the Commission requested comments and is working on proposed draft language. It received those comments on December 23, 2021. There were responsive comments and other language proposals provided on January 6, 2022, and now the next phase will be actually occurring. The Commission is holding a workshop today to address that language. A brief summary of the transportation electrification.

The next component is transmission plan, and as you recall, the transmission planning component required that NV Energy file an amendment to its pending integrated resource plan application, and to include a proposal for certain specified high voltage transmission projects that the Commission had previously found prudent for utilities to move forward with conceptual designs permitting and land acquisition for. Essentially it was the remaining projects associated with the Greenlink transmission project that I know you are all very aware of. That plan was incorporated into the resource plan application as an amendment and was carved out as a separate phase of the resource planning proceeding that is pending before the Commission as phase four. That is the final phase of the resource plan

proceedings before the Commission. NV Energy's testimony was due yesterday. However, in my notes, on the slides before you, do not reflect this, but last week the Commission received a consensus stipulation, settling all of the issues that were presented, and so it is very unlikely that we will actually see a hearing and further testimony in this matter. I think you can expect to see that stipulation be brought to PUCN in an upcoming agenda and public meeting for the Commission to vote on. Given the fact that the utility, according to the signatories to the stipulation, satisfy the requirements of SB 448 with regard to that transmission infrastructure for a clean energy economy plan. No one is contesting the terms of the stipulation and it will potentially be resolved within the next step by the end of the month.

Some of the other resource planning requirements that are addressed by SB 448 are a requirement that at least 10 percent of the expenditures related to energy efficiency measures focus on low-income households, residents, and customers in historically underserved communities. That requirement has been incorporated into the planning process for the Commission. There is proposed language in the rulemaking proceeding that I referenced previously addressing this matter. All resource planning issues related to SB 448 are being addressed in Docket Number 21-06036. I believe there is a workshop as we speak. The other resource planning requirement is that the utilities be required to include in their plan a scenario that would achieve zero carbon emissions by 2050, and then another scenario that would achieve an 80 percent reduction compared to 2005 levels by 2030. Those scenarios contemplating what it would look like to get to those carbon emission reduction goals. That is a new statutory requirement that ensures a review of planning decisions that would be necessary to reach those outcomes.

The economic development electric rate rider, provisions within SB 448, would extend the availability of the discounted electric rates for new, commercial, or industrial businesses in Nevada. A rulemaking the Commission has initiated to implement those new requirements is in Docket Number 21-06037. The proceedings in that rulemaking have included comments and draft language being due on July 30th. The Public Utilities Commission of Nevada held an informal workshop, not the workshop required by the Administrative Procedure Act, but one to help to facilitate discussion and address the draft language. That was held on August 10th. On August 13, 2021, the Commission sent the proposed regulation to LCB for preadoption review. It has since had the proposed regulation returned by LCB in revised form. On December 2, 2021, PUCN concluded the revised proposed regulation would not be likely to impose a direct or significant economic burden upon small businesses. I have an update now that is not on the slide. The required workshop and hearing, under the Nevada Administrative Procedure Act, have been scheduled for February 14th and 16th, respectively. Following that workshop and hearing, the Commission can then proceed to adoption of regulation.

Regarding the regional transmission organizational (RTO) components of the bill, I know you are going to hear about RTOs during a later presentation from NV Energy so, I will focus on the component that explicitly requires action from the Commission for implementation and that is being addressed in PUCN Docket Number 21-06038. It addresses basically the offramp provision within the bill through which if a utility demonstrates that despite all reasonable efforts being made to comply with the requirement to join an RTO by 2030, it is unable to find a viable option and that it is not in the best interests of both the transmission provider and its customers to join on or before January 1, 2030, the transmission provider may request that PUCN waive that requirement to join by January 1, 2030. The Commission is going to be adopting a regulation that outlines the framework for evaluating such a request to offramp it from that requirement.

These are additional provisions that I will briefly outline that do not require new regulations by the Commission, but will affect utility operations and PUCN decision making. The first of these additional provisions is related to net energy metering and Section 36. It provides some guidance regarding the definition of public utility. It exempts from that definition, owners of net metering systems that deliver electricity to multiple master-metered persons, units, or spaces. It helps to provide guidance to both the utility and its administration of the net metering programs and to the Commission in determining eligibility for that program. The burden of proof and utility rate cases is something that you might recall was discussed last Session. Basically, this is not something that is going to change the way the Commission has been recently reviewing rate cases and considering those applications. However, it will provide clarity to the utility applicants there is no presumption that any of its expenses or investments, including the application, were prudently incurred. It clarifies what that burden of proof is for the utility. We will hopefully ensure the utility is fully aware of what needs to be included in applications moving forward. The next additional provision is related to the disposal of generation assets. This is a rarely referenced statutory provision, but it will become relevant if Sierra Pacific Power Company and Nevada Power Company do seek to merge into a single utility in the future. The Commission will go through the process of evaluating such a proposal under the public interest standard rather than there being a procedural barrier to that change in ownership of generation assets compared to the law that existed prior to this bill. I am happy to answer any questions.

Chair Monroe-Moreno:

Thank you so much. Members any questions?

Senator Brooks:

Thank you, Chair. I just want to make a comment. There is a lot in that bill and almost all of it affected the PUCN, and created quite a bit of work. I see there are several open dockets and have been tracking them. Just wanted to thank the Commission for their efficient handling of the things that were in that Senate bill through the whole docket process, and everything that we have going on.

Chair Monroe-Moreno:

Members, any other questions, or comments? Thank you so much for presenting not once but twice today. We truly appreciate it.

We will move on to our next agenda item number seven. We will hear presentations on the regional energy markets.

AGENDA ITEM VII—PRESENTATIONS ON REGIONAL ENERGY MARKETS

Chair Monroe-Moreno:

As many of you know, this is not a new topic for those members who have participated in energy issues in the past. Throughout the years, Western states have explored the creation of a Western regional energy market. This Session we passed SB 448, which created the Regional Transmission Coordination Task Force. The Task Force chaired by Senator Brooks is charged with advising the Legislature and the governor on topics and policies related to regional energy transmission in the Western states. It will study the cost and benefits of transmission providers in Nevada joining a regional transmission organization to provide access to a wholesale electric market. The presentations this morning will provide some fundamentals of the regional energy markets for the newer members of the Committee and

serve as a review for other Committee members. I am going to take the presentations a little bit out of order, and instead of starting with Item A on your agenda, we are going to start with Item C on the agenda. There will be a presentation by NV Energy. I believe it is going to be Miss Carolyn Barbash.

C. Overview of NV Energy's Participation in the Western Markets

Carolyn C. Barbash, Vice President, Transmission Development and Policy, NV Energy:

I am Carolyn Barbash. I am the Vice President of Transmission Development and Policy, NV Energy. Today I have two of my colleagues, Ryan Atkins, our Director of Resource Optimization and David Rubin, who is our Director of Federal Energy Regulatory Commission (FERC) Regulatory Affairs. They both are going to be taking different parts of this presentation. David is going to be available for questions and answers at the end. In my job, I am responsible for the Greenlink projects. You will hear a little bit about that today if I have time and some wholesale market development. Ryan Atkins in his resource optimization job is directly involved in the outbreaks that we market in today and investigating other efforts that are looking at pieces of a whole market. In my role when I am not trying to get Greenlink built or designed, I get involved in market efforts that would eventually end up with us having all components of an energy market by one market operator and have it be a regional market.

The topics we will cover today are, and I apologize for some of you, as Chair Monroe-Moreno says, some of this will be a review (Agenda Item VII C). Some of it will be brand new, some it will be a reminder, especially for those of you who are new to the Committee, or the Legislature, or have enough of a life that you do not go home and read trade journals about wholesale markets. Since Garrett from PUCN did such a good job, I will flip out some slides on SB 448, and then Ryan Atkins will go into some of the markets that we operate today or that we are involved in reviewing to other single attributes of a full wholesale market. I will go into some future things that were working on to try to get the State of Nevada into a regional wholesale market with all the bells and whistles and services. And if I have time, I will talk about where we are at on the Greenlight projects and why we are building them and what they do. Just in case somebody here is not familiar with those because they are very important to a regional market and having it function properly.

There is often a thought that Nevada is not in a wholesale market. Well, we are. We participate in bilateral markets, meaning we go out and we find a seller of energy, or a buyer of our energy, and we make a deal and set the price. Usually, it is under a standard regulatory approved contract and we buy that resource. Then we, more recently, joined the energy imbalance market (EIM), which Ryan will speak to, makes up in real time some of those imbalances where we forecast our load and actual loads always differ from that. If a generator is not producing as much as we projected it to, it will go find the energy for us. If a generator is producing more, it will sell it in that real time market. With a clearing price, buyers and sellers are brought together sort of like a stock exchange, but it is a very, very small piece of an electric market. An organized market does that, and is more like a stock exchange rather than an over-the-counter market. It brings buyers and sellers together, sets clearing prices, is much more liquid and more efficient, can optimize resources better, and clear congestion on the highways, which are transmission paths. They provide a lot of benefits and savings to customers and a lot of other things. They present a little more risk in that we do not know that the exact path it is taking to get to us. We cannot point to that brick-and-mortar resource although there is one, but we do not know which one it is. They are often more financially firm products, meaning if the product does not show up, you might have some load problems, but your customers get compensated for not having that

energy. Bilateral markets exist in organized markets, meaning mostly utilities like us go out and secure a long-term resource or resources to serve our baseload, and then enter the organized market to optimize those resources in a shorter horizon in the real time, minute to minute or in the day ahead. That is the market piece. Regional Transmission Organizations do a lot more than that. They build transmission. They have resource adequacy requirements to ensure reliabilities, and there is a lot of other things involved in a full RTO wholesale market Independent System Operator (ISO)—those terms can be used interchangeably. The map there shows areas of our country that have full operating energy markets with all those attributes I just talked about.

I will not go through this too much as others will probably cover this later. They are all bid based; they provide energy services; real time day ahead and ancillary services; which are sort of the products that help make the product get delivered reliably and keep the frequency in the voltage where they need to. It is a lot more complicated than a stock exchange, because you are not just matching up buyers and sellers, you must worry about this other weird electricity stuff too. There is clearing congestion, which is, maybe wrapping up a generator in one location and ramping down in another location, because your highways are full. They all use a locational marginal pricing to set that price so that it indicates the price having to do everything you have to do to get the energy to that location. They are all approved by the FERC. They include regional transmission planning and development and requirements to ensure that each user in the market, meaning the utilities that serve their customers, have adequate resources every day, every minute, and even in the long term.

Garrett did a wonderful job on this Section 30 that talks about RTO requirements and that transmission providers in Nevada and the energy utility being one of those. Probably the largest with the most assets are required to belong to an RTO by 2030, unless a waiver is filed. The waiver may site detriment to customers, lack of the right partners, or inability to get a regional scope. It may not be in the public interest, meaning the cost outweighs the benefits, or it compromises in Nevada's clean energy goals. It would be probable cause to file a waiver for a delay in getting there.

The State of Nevada has defined in SB 448 what an RTO means to the state. It differs a bit from the FERC's definition of what they approved as an RTO, but that all meets the same intent. We cannot sacrifice our reliability to be in an RTO. Most of Nevada's customers are in Las Vegas, which is fortunately very recently built. It has very good reliability and in the top ten percentile. We do not want to compromise that. No advantages to any particular customers, so there is no cheating. Bills should be lower prices and reliable clean energy. It should be good for planning infrastructure around, because—as outlined in the presentation—the RTO assures that structure of governance or control that is independent of the users of the transmission facilities. Control that is an independent of users of the facilities that is highlighted because I think that is important to NV Energy and it is important to Nevada to know it that there is only one organized market. It is very close to us. It is in California, but that organized market is controlled by a governance board that is appointed by the governor of California. They approve every market rule and every decision about how expensive transmission projects will be allocated to customers. Nevada is not represented on that adequately right now, so it is not available to join without some changes. There is a lot of good things about the California ISO. It has successfully operated that regional energy and balance market; and very good operations. But right now, we are not able to join the full contingent and participate in RTO. We also have a task force set up in Nevada, which will analyze and report back to the governor and the Legislature on what it might cost, what our customers in Nevada might get in return, what laws might need to be changed, ways to increase economic development through belonging to a wholesale market,

and availability of low carbon energy. It will study attracting people and renewable generation to Nevada. The first report from that committee is due November 30, 2022, and then it will be on every other year basis after that.

The members that have been appointed. Senator Brooks will chair the committee as the sponsor of SB 448. He is someone very knowledgeable to lead that group. I believe all the members here are populated except two members of the Senate and two members of the State Assembly. They are not currently on that list. If they have been selected, they are not yet when the slides were updated. I have covered some of the basics about where we are at in this wholesale market, why we are trying to do it, and I am going to turn it over to my colleague Ryan Atkins to talk about the markets that we do operate in and other pieces of the market that we are looking at under various initiatives in the West.

Ryan Atkins, Director, Trading, Analytics and Operations, NV Energy:

Good morning. I am Ryan Atkins. I am the Director of Trading, Analytics and Operations at NV Energy. I oversee our group that buys and sells our electricity or natural gas and schedules all our resources. I am going to talk about the market options that are currently in place, as well as some of the other discussions that are ongoing. I think what you are going to see and hear are that there are a lot of options being talked about. What is important is that NV Energy and other entities in the West are looking for a long-term solution, and we will see if that through smaller incremental steps or going right into a full-scale market. I think really the discussion starts with the Western EIM. The EIM is a real time energy market operated by the California ISO. It was launched back in 2014. NV Energy joined in 2015, as the third participant. The EIM is a true imbalanced market and it is optimized at the five minute level. It is important to note, this is a voluntary market and participating is not equivalent to being a full member of the Council, so the transmission control, the resource adequacy, the resource planning remains with the member utilities. As you can see on the slide, there is the continued growth and expansion of the EIM. By next year there will be 22 active participants, representing 84 percent of the demand in the Western United States. This huge geographic footprint means bigger benefits both economically and reliability for us. Looking at the benefits for NV Energy, since joining the EIM through the third quarter of 2021, benefits exceeded \$151 million. On the next slide, it shows all entities throughout the history of the cumulative benefits have exceeded \$1.7 billion.

From the California Independent System Operator (CAISO) perspective, the next incremental step is really this extended day ahead market or EDAM as it is called. This is just expanding the concept of the EIM to the day ahead timeframe. This would be more of an incremental step on the way to a full scale market. It would remain voluntary, similar to EIM and would not be equivalent to becoming a full member of the CAISO. It would allow current EIM members to leverage a lot of the work that they have done with their systems, but from signing up with the EIM and participating in CAISO. The day ahead timeframe would allow for additional fuel and purchased power savings and just continued integration of renewable resources. This effort was really kicked back off in late 2021, and will continue through this year. At this time, no determination has been made as to whether in NV Energy will participate.

Policy design discussions will be going on through this year, with expected implementation in 2023, with potential implementation in 2024. That is one of these incremental options that we are talking about. On the next slide is a bit of a new wrinkle that has come into play—a new unique kind of market option—a Western Resource Adequacy Program, the WRAP they call it from the NorthWest Power Pool. Rather than being a real time or day ahead market design for optimization, this is really focused on capacity sharing and

ensuring resource adequacy for its members. It is going to match up a resource deficient member and pair it with another member who may have a little bit of excess. It is more focused on the reliability piece and less on the real time optimization piece that we have been talking through with EIM and, potentially, EDM. There is a lot of participation in this program already. It would be another incremental step towards greater regional coordination and a potential long term market solution. Currently, the program has retained Southwest Power Pool (SPP) as the program operator, and they are preparing a nonbinding test of requirements for this summer and upcoming winter. They anticipate being fully up and running by 2024, and NV Energy is participating in the current phase to be able to determine the long-term feasibility and benefits of this program.

If you look at the next slide, the map. It shows that, similar to EIM, a large footprint across the West and this regional collaboration what is really going on with these market options. Then if you go forward two slides, another key initiative related to regional coordination FERC Order 1000 requires the participation in regional transmission planning groups. If you see on the map, NV Energy has been participating in WestConnect, which is in the green, but we just received approval from FERC and the PUCN to join NorthernGrid. Looking at the map, NorthernGrid is going to be a combination of Columbia Grid in purple, the Northern Tier transmission group in yellow, and the State of Nevada. You are going to have one really large transmission planning group coming out of that. It is going to help with our improved ties in the north and the east to take advantage of Greenlink, which Caroline will talk to you in a little bit. The most important point is this is another step towards widespread transmission coordination rather than a more siloed approach to transmission plan. Looking at what we call multi-attribute market initiatives, I would say greater than an incremental step like we have been talking about, the first thing that has come out is the Western markets exploratory group. This is a group of Western utilities announced back in October of 2021. They have come together to talk and identify market solutions to achieve the goals that we have all been talking about, carbon reduction, reliability, and affordable service. Finding and developing a long-term solution for the entire West. One important thing about this group is they are really going to incorporate lessons learned from these existing markets, as well as these ongoing efforts across the West that I am talking through. The current process or the current members are in the process of selecting a facilitator, a project manager that has some experience to really start putting together a structure of what a new option could look like. As you can see on that table, quite a large list of large utilities are a part of these discussions, including NV Energy, this really helps identify one of the options now and what else could exist going forward that would satisfy our needs.

Finally, I want to talk about SPP and their potential expansion. If you see on the map, SPP already has an RTO in the midcontinent; in the Dakotas, Nebraska, Kansas, Oklahoma into Texas, but they are expanding. They had launched their own Western Energy Imbalance Service (WEIS) in February of 2021, so this is similar to the EIM that we participate in where members do not have to be a full member of SPP. It is managing them on a sub-hourly level. There are numerous participants already that are in mostly Colorado and Wyoming areas. There is the potential of that expanding into a full SPP RTO West in 2024, so that would have SPP really starting to get into the Western region. SouthWest Power Pool is also offering what they call a market plus concept, so it would combine this real time functionality with day ahead functionality but would not require participants to go all the way into signing up for a full RTO membership. They are trying to come up with some unique options that entities may be interested in, you can see right with the markets. Plus, it is a bit of a hybrid between the current path of full RTO and what they are offering. I think the key takeaway of all these options that I have outlined, and I have tried to keep a very high level, it is just NV Energy and a lot of entities are really trying to look at all these options of keeping an open mind, but we cannot do it alone. We all have an interest in

finding the best solution. I think it is going to be really critical to try and identify a single market solution, so if it ends up being multiple markets with multiple steams between those markets, it will lead to lesser economic and reliability benefits. This really is a key time, and the reason that there are so many options that are currently in play. I am going to hand it back to you, Carolyn, to talk through Greenlight.

Carolyn Barbash:

Thanks Ryan. An update on the Greenlight transmission project, let me walk through what they are. Transmission is extremely important to the topic of wholesale markets. Without that, we do not really have a robust interconnection with other states. These transmission projects are all within Nevada, but as you can see over here in the Ely area, we have strong interconnections and a lot of development interests over here. To our eastern states, some of the states that have a little bit more complementary resources to Nevada's large amount of solar, meaning wind and hydro. The wind usually blows when the sun is not shining and often picks up in the eastern parts of the Western states at night when the sun goes down. It is very complementary and hydro as well, because Nevada is not known for its large supply of water. Greenlink West is about 350 miles long in total, about from Yerington down to the Las Vegas Valley at the Northwest substation is about 230 miles and then over into the City of Las Vegas through the City of Las Vegas to the Harry Allen substation, probably another 30 to 35 miles. Then we have another part of Greenlink is Greenlink North, which is this line across which is basically following Highway 50 across Nevada from Yerington over to the Ely area, about 250 miles of 500 kilovolt (KV) line.

We have things that we call the common size, which pick up what I like to think of as big sources of supplying bulk energy. It picks up that energy and steps it down to 345 KV, which used to be the largest voltage we had in Nevada, and delivers it into some of these large growing areas in the Tri Center area. The Carson Valley released some, reliability problems in the Carson and Mason Valleys and it also picks up a lot of renewables in those areas as well. Why are we proposing to build these lines? For connectivity to other states. Just in a little bit more detail; this online project was our first interconnectivity between two utilities. Greenlink West was approved by PUCN to be constructed from Fort Churchill down to the NorthWest Substation and be in service by December 2026. This provides a lot of optimizing and saves our customers a ton of money is what I should say this online project was built back in 2004. We had a good service in December 2013. We really share a lot of resources between northern and southern Nevada. There is a great seasonal diversity in our loads, and there is a great difference in resources as well. The two ends of the state are very complementary and sharing those resources. If this line were to go out it is out until it gets back in. If there is a wildfire it is out until we can order poles in the supply chain—wire, whatever gets burnt out and we can rebuild it. We do not want to lose that money, meaning all those savings we have been passing on to customers right now. We also get suspended from the EIM market which is a big energy saver. This line will provide some redundancy, some really good reliability. It is also very strategically planned to run through very rich solar energy zones. There are three solar energy zones around there, probably some of the richest in the country. Those will be Nevada's to serve our customers with low-cost energy. There is a lot of interest from renewable developers who can provide economic development to our state with new jobs, clean resources, and add to our carbon bills. The area has no access to our grid right now so this project will open it up. Our major purpose for building it, was to get energy into northern Nevada and meet our Nevada clean energy goals. The economic development it provides is just really icing on the cake with these projects. It will position us as a leader, we are centrally located, what is needed for the State of Nevada geographically to be part of a regional market. We connect all the complementary resources right through our state. We are right in the middle. We are a hole

in the middle of the donut. It has positioned us to be a leader in the energy market. Greenlink North is going to create a total redundant triangle around the state meaning, you could lose any one of these 500 KV lines and still have delivery to the two points, Ely and Yerington. It is building in some very much needed redundancy finally, for the State of Nevada. It is encouraging business development. This line was strategically planned to follow some wind zones, geothermal zones, and additional solar zones. There is a lot of pumped hydro interest in Ely, Nevada, which is complementary solar as well, because you can let the water flow at night like a hydro plant. Water can also be pumped uphill while we have excess solar during hot summer days down there in Clark County. These 345 KV lines and this first phase of Greenlink West are moving forward with construction. They are well into the EIS and National Environmental Policy Act (NEPA) permitting stages with the Bureau of Land Management (BLM). We filed September 1st to include these in accordance with SB 448 with Northwest to Harry Allen and the Greenlink North Line to be in service by December 2028. As PUCN representatives, Ms. Mullen and Mr. Weir, said at the beginning of their presentations, we filed that plan and a stipulation, which is under review to approve inclusion of that Greenlink North project in the final phase of Greenlink West in those construction plans. We also have David Rubin, who is very knowledgeable about federal regulatory requirements and the history of wholesale markets in general. He has been involved in the creation of a lot of them. I will open for questions from the Committee.

Chair Monroe-Moreno:

Perfect. Thank you both for that presentation. I believe first up with questions is Senator Brooks.

Senator Brooks:

Thank you, Chair and thank you for the presentation on the regional markets and regional transmission, but my questions are around Greenlink specifically. I see where the routing is. Do you know if it has been determined yet where some of the collector substations are going to be? Will the utility be taking interconnection requests before the line for the substations are built, but I guess obviously after these substations are sited?

Carolyn Barbash:

Correct, yes, very good question. Thank you, Senator Brooks. We will be taking applications for interconnections before the lines are placed in service. For the collector stations, there are two designs proposed on Greenlink West and one currently on Greenlink North. Those locations are not firm, as you know. We are doing routing and siting through the BLM, and they do the NEPA process. It is really their decision and their process. We are the project sponsor, but we do not decide the route. It is decided based on the least impact to our lands and our natural resources in Nevada in consultation with cooperating agencies, the cities and the counties, the tribes, the Department of Defense, and all those agencies that participate and have concerns over routing and siting. They have interest in the lands and they are providing comments. Environmental and geotechnical surveys need to be done before we can say this is where these collector stations are going to go. If we start accepting applications or renewable interconnections right now, I think it would be a little bit of a disservice to those renewable developers who might be entering a request for approval (RFP) and not scoring high enough, or missing out on that bid losing it because they think they are lead line to the collector stations longer than it really is going to be. We would have to do the studies all over again and re-estimate the cost. We want to get a little bit more certainty. I think when we get to a good point when we feel like we are closer to a record of decision and the routes sited, we will communicate over our Oasis system, which

is what the FERC requires at least two weeks in advance. We will be accepting generation interconnection requests and transmission service requests to those collector stations and over the line.

Senator Brooks:

Thank you for the answer. On the permitting and routing side of this, I know that there are bi-state and greater sage grouse issues. There are all kinds of environmental and cultural considerations on routing. Have you faced any insurmountable obstacles in that process? Could just give me a brief update on what that permitting, and routing process looks like now.

Carolyn Barbash:

Not so far that I have heard. I do not have any of our smart, permitting folks and environmental folks on the phone. We have not run into anything that we do not think we can mitigate. There are some private lands, although it is probably 85 and 90 percent federal lands that we are crossing, there are some private land concerns. Some expansion plans, probably from the Department of Defense, conflict with some of the Native American tribal organizations. We are trying to work with all the constituents along the route to find mitigation and alternative routes. We try to minimize the length of the route, so we do not want to have to go 80 miles around something because that is going to increase the cost to customers, nothing insurmountable yet.

Senator Brooks:

Thank you. I just want to thank you for the work that you are all doing. I get a chance, both as a policymaker and in my professional life, to talk to a lot of developers, transmission developers, and renewable energy developers. The work that you are doing has sent a message across the entire West and has really kicked into gear tens of billions of dollars of investment around transmission in the West and development in our state. It would mean tens of thousands of jobs and hundreds of millions of dollars in tax revenue over the life of the project. Good job and what we thought and hoped would be accomplished through statute, we are already starting to see the results of it. I am appreciative of your efforts.

Carolyn Barbash:

It is good to hear. I have to say, the state BLM office has really stepped up. They realized the importance of this project to the State of Nevada, to our Legislature, to our governor, to economic development, and clean energy efforts. This is the most aggressive schedule NV Energy has had on a transmission project in the 30 to 32 years I have been here. It is going very well because of the importance that has been placed on the project. Thank you.

Chair Monroe-Moreno:

Members, any other questions? Assemblyman Ellison. Senator Hammond, you will be after him.

Assemblyman Ellison:

I am looking at the map, and I am seeing that between Ely and Yerington, some of the strongest, most powerful resources we have is hydropower up by Crescent Valley, Beowawe, over by Fernley and down that way, and that does not even show on the map. That was my first question. The next one is, we lost a large wind generation system

between Idaho and Nevada, up in the northern corner that was denied because of the sage hen. Do you think you are going to run into a lot of these issues as we go along?

Carolyn Barbash:

This is a different area than Beowawe and Crescent Valley for those geothermal resources. But there are some geothermal resources and we are going to have to go through this whole environmental impact statement and NEPA process, and try to find mitigating factors such as re-routing the line and things like that. The renewable developers will have to get their own permits, and they may face some of that as well.

Assemblyman Ellison:

Up to the north there is a lot of geothermal that is being used, but it is still untouched compared to some of the other resources that they are using. It is a natural resource that keeps on giving. I am hoping you take that into consideration. Hydropower is great. One thing you did discuss, is moving water and hydropower up and down. There was a large project under study that did not go anywhere. They pumped water upstream in the middle of the night when the demands were low and then, the next day when demands were high, they would take water out of the lakes and move it back down. I thought that was pretty interesting.

Carolyn Barbash:

That is becoming a lot more feasible now that we have a lot of solar development that is very complimentary and is providing energy to pump it during the day and then when the sun goes down to have that energy from the hydro that was pumped up the hill. It is very, very complementary. It solves a lot of the excess energy problems, and it is really a good use of the resources and combining them.

Assemblyman Ellison:

Thank you, Madam Chair.

Chair Monroe-Moreno:

Senator Hammond.

Senator Hammond:

Thank you, Madam Chair. I think for the presentation, it is just three quick questions. I wanted to go back to the discussion of the RTOs since that seems like we are taking those baby steps to get to that that stage. If somewhere under this research I think it would be really beneficial to know a few things. Could you tell me the oldest RTO that has been around? And related to that, what is the newest RTO? And is there one RTO that is sort of the gold standard, something we could look at it and say they got it right? Maybe they looked at mistakes have been made in the past that you know how the organization is and so forth, and that is the one you kind of want to look at a little bit.

Carolyn Barbash:

Probably the oldest is the PJM [PJM is a regional transmission organization that coordinates the movement of wholesale electricity in all or parts of [13 states and the District of Columbia](#)]. All the RTOs in the east, the New York ISO, the New England ISO, and PJM are

operated in these very tight power pools. It takes about five of their states to fill the regional geography of the State in Nevada. Crossing interstate lines is not that uncommon. There is where you have these multiple jurisdictions and regulatory commissions to get across and allocate the costs and things like that. The newest is probably California or Existing Transmission Contracts (ETCs). David Rubin would probably be able to answer that. The answer on what is the best is—they each have really good attributes, they all have really troublesome attributes, and some of them are more fitting for a state like Nevada and some of them are not. I am part of the Western Market Exploratory Group (WMEG) effort, very involved in finding our facilitator and things like that, which we are in the final stages of. We have told them that if we do not need to, we do not want to waste our time recreating something that has already been done. We want the best of all worlds. We want what is appropriate for us. If it is the resource adequacy program, which the California ISO has or the congestion management program that ETC has or the transmission planning at PJM. Then take those pieces of their tariffs they have already been approved by FERC. A large thing about markets is their resource adequacy and whether they have the capacity market, whether they have price cap markets, or whether they require showings, but they have the resources. There are reasons for different models all around the country. Some because they have a very strong retail access program, would have a capacity market because smaller providers of service do not have access to building capital resources to serve their customers. Whereas a resource like the SPP would have a resource showing program because there is no retail access to speak of in that footprint. One thing the State of Nevada cannot do is be an RTO on its own. It is going to take a lot of outreach and a lot of working with other partners, which is why we are going in baby steps because our neighbors in the West want to. We cannot say we are going to do it all within the State of Nevada, because then you are not a regional market. You are NV Energy operating as if it were a market, and that is what we already do today. I will leave you with that. David Rubin might address oldest and newest RTOs.

David Rubin, Director, Federal Energy Policy, NV Energy:

I came out of the New England Power Pool and did the same or in the same with PJM. Early efforts there in the mid-continent and SPP sort of grew similar to what potentially we are doing in the West with imbalanced market services first and then of evolving into what they call a day two or more of the RTO market that we see today. Those are the ones that are newer and they did not come out of that tight, power pool the way the eastern ones did.

Senator Hammond:

I appreciate that you are seeing things like WMEG. As I make decisions, I need to know more, so I appreciate your willingness to give us some more information, and that helps out. Thank you.

Carolyn Barbash:

Sorry, we did not make an effort to explain the 14 different utilities that Ryan was speaking about. We had it up on the screen, but one of them was and it is in your presentation.

Senator Hammond:

I am grateful for the presentation because it did, as you were going along, talk about how you want to get into an imbalanced market, or at least, that is the newest way to get into an RTO, and that is the kind of the stuff I was trying to learn. What have we learned over the years of trying to get into RTOs? It sounds like the newer RTOs baby stepped in by

starting with imbalanced markets. You guys had a good presentation. Thank you again and thank you for the question.

Carolyn Barbash:

Thank you. I will add one thing on that WMEG slide that you all have. LEWP is also a member now. They were not when we created the slide, but they have also committed. We also have public service of New Mexico. There are two more entities in that group.

Chair Monroe-Moreno:

Members, any other questions for the presenters? Seeing none, thank you so much.

Carolyn Barbash:

Thank you Chair and thank you, Committee for your time.

Chair Monroe-Moreno

Next up, we are going to go back to the top of the section. Mister Cameron Dyer, Managing Senior Staff Attorney with Western Resource Advocates (WRA) and Mister Vijay Satyal, Regional Energy Markets Manager with WRA. They will present information on the Western resource market.

A. Western Markets and Opportunities for Nevada

Cameron Dyer, Managing Senior Staff Attorney, WRA:

Good afternoon members of the Committee. Thanks for inviting us to present today. My name is Cameron Dyer and as the Chair mentioned, I am Senior Staff Attorney with WRA. I am also on the RTO task force along with Miss Barbash. With me today is Vijay Satyal, Regional Energy Markets Manager. I am going to share our presentation explaining the WRA organization (Agenda Item VII A). We are a non-profit that impacts a series of conservation issues across seven states in the interior West, and numerous areas to protect climate, land, air, and water. Vijay and I are focused on energy issues with my time focused entirely on energy. I am going to pass the presentation to Dr. Satyal to talk through our work in Western regional markets, and then I will come back to talk through how to impact those future potential markets more directly. Thank you.

Vijay Satyal, Regional Energy Markets Manager, WRA:

Thank you, Chair Monroe-Moreno, and Committee members. We appreciate the chance to speak. Thanks to the NV Energy team for covering a lot of the regional initiatives that are in play. We are coming at this slightly differently, but having the same common message to give that the regional markets in the West are needed and helpful. As you can see from this visual, this really gives you a complete visual comparison of existing RTOs in the United States. As you may realize, the electric grid in the U.S. is not limited to political boundaries. The electric grid in the West does go into Canada as well, but in the West, there is a large gaping hole. It is the reason where we do not have a market. We have what is called bilateral markets for energy and transmission, and this is the area where we feel policy needs to change and to make a larger sink, ideally a larger footprint ISO or RTO. Senator Brooks has been a champion in this regarding Nevada. This is critical, not just because it sounds good, feels good to have one large footprint. It is also because it can

really incentivize and foster development of renewable energy and create automation and efficiency.

The next slide is one of my favorite slides and from my time prior to being at WRA, I was senior policy advisor at Western Electricity Coordinating Council (WECC). One thing I learned at WECC, which no other place taught me, is the huge degree of interconnectedness of the West. The Western Interconnection is truly diverse. It is so diverse that you can have geographic diversity of assets that should be better used. It should have resource variability across time zones that is not currently being used. If you notice in both the scenarios that I brought up that are not being used can be enabled. It can be done. The regional market would allow what is called situational awareness, enhance reliability, and help bring resources and transmission together. One thing to keep in mind, if you look carefully in this map—Cameron will highlight it more in a very interesting way—without historical visual you will see the dark lines of the green and the red lines and the Northwest. That is the strong grid current transmission system, which can be called electrons highways. In the middle we do have some transmission system, and I am glad NV Energy is working to expand their transmission network. It is what market would enhance and incentivize better use of very same transmission system. In other words, we have a doughnut system, which now, is not as significant as it was 20 or 30 years ago.

What does an organized market really mean? Everybody talks a lot about it in different ways. Carolyn touched on it really well. To your question Senator Hammond, different markets have different services. Typically to the left, you will see on your screen a good organized market should ideally have fewer balance areas (BAs). For BAs, there are less checkbooks to manage the accounting for, how much boost managing end supply to meet load. You also will try to have a common resource adequacy standard. I hope you will agree with me. We do not have different roles for seatbelts in different Western states. We do not have different rules for using an Uber or Lyft in different Western states. We have a common application to use an Uber whether you are in Portland, or in Carson City, Nevada, or in Salt Lake City, Utah. The same goes with a good organized market, which would be independent. It would have board members who are truly independent. The process is transparent like the Legislature. And more importantly, you have not-for-profit intentions for the market operator to manage energy flow. If you do not have these characteristics, you are going to have, of course, the heavy hand of FERC oversight questioning the independence of the jurisprudence of the good ethically and robust market work. Three of the things that are important for good organized markets are the ability and the facility to track greenhouse gases and the impact of fossil fuels versus non-fossil fuels. This is not necessarily to question why fossil fuel emissions are happening. This is to help create an inventory. The last thing is transmission. I do think a single organized market has a single transmission operator, manages transmission assets of the utilities that release it, and allow it for centralized dispatch. The keywords are centralized dispatch, and if you like, it is like another card service, but a good organized market could include single or shared transmission planning. You do not have a patchwork of different transmission planning processes that many regional transmission groups have. You do not have to have that if you want state level, influence, or voice, but you still do need some of those items that I spoke to. The essence of these functions to the right are the services. That is enhancing reliability; allowing for consistency of planning for demand and supply of energy; making sure that the processes of tariff setting and prices are transparent, clear; and market operating rules are well understood by buyers and sellers. Most importantly, I think even NV Energy will agree on this team and our partners coming behind us is the grid is changing and the grid economics are changing. If we want an organized market, we do not just want it because it is cheap, efficient, or economical. It is also the need of the future, as a society, is changing.

How do regional energy markets help renewables? I touched on it earlier, but I will bring it up again in a different way. The geography, diversity, time and again, over two decades, we have had enough studies that have shown the diversity if automated and used well, can truly enhance resource availability. You can help adjust when the load is not big and where the load is low, you can adjust the resource diversity to ensure your large available pool of supply of clean energy options. The second thing it does is you are reducing containment which is stopping the supply of energy that otherwise could be used. We do not see what we do not know is how much energy we are not able to bring into the system. And the second is economics. You will see, and time and again, studies have also proven that investments allow independent merchant projects that support zero carbon resources. They are economical and if they are dispatched well and automated value, create consistency of planning, it can overall help reduce costs, reduce wholesale energy acquisition costs that can help ensure more regular energy is part of the larger mix.

To summarize, a good RTO development needs to consider these five or six elements. To Senator Hammond's question, if you want the baby step approach, one example is if you develop an energy balance market. You have one in the West and one in the southeast; and they are trying this one with SP. Imbalance markets are typically a very good way to start reserved sharing in real time. Western Resources Advocates is a proponent of the day-ahead market, but eventually it should all help the maturity of the concept lead to a full RTO. The three boxes you see highlighted in some solid red shadow effect is the area that WRA is committed to engagement for five years. We will be committing to engage in improving the governance structure, and making sure that we address public interest groups' concerns and recognizing that consumer advocates outside California alone have an equal voice if there is a solution that includes entities outside California. Any arguments being done in the West should have a fair, independent, transparent government structure. We believe that you need to have good transparency in reporting metrics. If you do not have that, how would you know how well the arguments function? This is important for state decision makers, regulators, policymakers, and legislators. The third important thing for WRA is we believe in a decarbonized grid. My language is not just show me the money, it is also show me the benefits. Show me how the areas getting cleaner or show us how we are truly seeing green electrons, as to speak equally on the table as we have had fossil fuel resources in the past. Greenhouse gas accounting is not just for greenhouse gas impacts. It is to show the justification for future clean energy investments that are needed. Ironically, you will be surprised to know, fossil fuel generators also want greenhouse gas accounting, so it helps them better plan and deal with state requirements or obvious needs they encounter in their own portfolios. We have a proposal and a white paper, which comes out on Friday, discussing leveraging greenhouse gas proposals in different forums.

Today, I will get to the crux of WRA work with public interest organizations, but we also met with the utilities. We have done nine months of outreach and engagement with energy customer groups and utilities. We are proposing a regional greenhouse gas accounting platform that is needed across the West to prevent a big problem. Currently, we have a patchwork system. We have some states with some greenhouse gas accounting, and please note that greenhouse gas accounting does not mean carbon pricing. You may want to track your greenhouse gas emissions with or without a carbon program and state whether you believe in a federal program or original program you still need state level tracking. This would enhance existing RPS tracking, which is only clean energy development, which is new generation. We work to propose a structure and a tool concept that would not interfere with state level goals, not affect utilities from dispatching energy, but help create a one stop shop inventory to track greenhouse gas emissions and regional impacts.

Where do we go from here? We do not want to sell something that just sounds good, feels good. We recognize the political and economic challenges. We recognize there are some regulatory areas to work on and there are some market design challenges. How are the rules of the game designed? These are all opportunities; these are not problems. There are ways that other regional markets have addressed losing control issues. States have a voice, state committees that get engaged in a governance structure. There are ways to ensure state policy goals are not compromised and there are ways to ensure how rules and a great design; so you can have both your benefits visible at the retail level, there is a role for you all to play. There is a role in ensuring regulators can also work to make this happen. On the regulatory side, WRA believes, and I am sure Cameron will be happy to work with you in every possible way to ensure sustainable infrastructure is meeting the needs of the future grid. We need to find ways for environmentally sustainable solutions that show land use is being allocated and infrastructure can be built within state level approvals.

The last thing I want to touch on is rules of the game called market design. There are a lot of challenges with how costs will be allocated across the system because of the existing way the grid is designed. As we move towards the future, we will have to work through some adjustments and ensure how costs are managed for winners and losers. That is an area of interest for us. Community utilities and public marketing agencies all have a common stake in this game, and this is what we are trying to work on. Thank you for allowing me to present.

Cameron Dyer:

Thank you, Chair. I am Cameron Dyer, with WRA, for the record. The first slide is a short list of select policy provisions that have sought to and successfully have addressed some of the impacts that our state has had on climate change. It is not meant to be exhaustive. It is meant to illustrate that Nevada has a long history of tackling problems in a measured and effective manner. For instance, the Renewable Portfolio Standard (RPS) was active 2001, which I accidentally left off this slide here, and has updated several times since. As you know, the Governor's Office of Economic Development [should be Governor's Office of Energy] was instrumental in preparing and publishing Nevada climate strategy recently. *Nevada Revised Statutes* 455B.380 [should be NRS 445.380] was recently amended to require annual inventories for greenhouse gas emissions by the transportation and electricity production sectors.

The question is, "How to account for greenhouse gas emissions in Nevada?" The Nevada Department of Environmental Protection (NDEP) recently released its annual greenhouse gases for 2021. At a high level, the inventory focuses on the transportation and electricity production sectors. However, they also include the industrial sector in their current report to improving greenhouse gases. They also have quadrennial or every four-year inventory that is much more comprehensive for the entire state. What you will see in the report and what is highlighted is that the most important greenhouse gases for energy generation are carbon dioxide and methane. Fossil fuels generation converts methane to carbon dioxide to generate electricity. Where the state has made the most progress in reducing for those greenhouse gas emissions from possible generation is converting existing fossil generation to renewables such as solar and geothermal. Currently, our RPS is focused on electricity generation. What is needed is a shift away from the RPS to an attribute-based system, which Dr. Satyal discussed earlier. This would focus on the consumption of energy that is consistent, easily verified, can be done in real-time, and accounts for power purchases that come from the market but not necessarily with those attributes. As also noted, we have offered the white paper that will be ready for distribution at the end of the week.

On the next slide, you will see the transmission doughnut. I am using a relatively old map. This is from 1989, highlighting how transmission in the West has developed. If you look at the map from Dr. Satyal's slides, there is some development of transmission in the Nevada doughnut. However, much of that has not necessarily connected to our neighbors in the north and east. This is the same map with lines added to illustrate approximately where transmission either has been developed or will be developed. You already saw more accurate mapping of the Greenlink path in NV Energy's presentation. On the right side of the slide is the currently operating One Nevada Line that runs around Las Vegas to central eastern Nevada. On the left is the Greenlink West line approved by the PUCN last year. The red horizontal line is Greenlink North that was subject to the provisions of SB 448, which was discussed by Mr. Weir and Ms. Mullen. It is currently at PUCN, discussed by other folks, and subject to stipulation and approval by Commissioners. The other two lines listed here show the Southwest Intertie Project going north and the TransCanyon Cross-Tie project in yellow and going east. Those are largely outside of NV Energy's control or control of the state. However, if they are approved and built, they would provide some of the new, good transformation interconnection that would address the doughnut hole. It would convert the West into a transmission "cake" if you will.

What does this mean for Nevada? This is another map showing Nevada with an overlay of the same transmission lines. However, it also has the renewable energy zones shown there. They are little hard to determine, but you have geothermal zones, you have wind zones, and you have solar zones. What this map is meant to illustrate, ultimately, is that the proposed Greenlink lines will touch on or be very close to existing renewable energy zones. The transmission lines proposed would provide access to opportunities for Nevada's consumption, but also for export of any excess generation to other states through these proposed transmission lines. Lines also allow that in part when you are looking at other states, hydrological generated energy. This type of import-export scheme is called geographic diversity, as Dr. Satyal mentioned and serves several purposes. First, it ensures that the energy in Nevada can be delivered to the areas that need it. For instance, if there are thunderstorms over northern Nevada in the summer that impact solar generation, energy from other parts of Nevada can be sent to keep the lights on. The same as true in reverse. This is a very important component of reliability that an RTO would offer. Second, if Nevada is generating more renewable sources, we could sell that excess energy to neighbors commoditizing whenever it goes to funding, resources, sunlight. Finally, as part of a regional market, any renewable energy that would generate will have attributes that will be fundamental to creating other greenhouse gas production targets throughout the West.

This slide is a response to the slide that Dr. Satyal indicates is a portion of the challenges Nevada is facing in developing an RTO. These are ways that we can address those issues. Let us think about a framework. For instance, governance is an issue and what we need to ensure that we are active and attentive to this issue to ensure that all stake holders in an RTO are treated fairly. From a regulatory perspective, an RTO would make it much easier for Nevada to achieve our greenhouse goals and greenhouse gas reduction targets if we have regional partners. Another example is that we want to ensure that system design results in greater benefits than costs. These are all feasible outcomes and items that we can look at in a proper planning and engagement by this Committee and the RTO task force. That is all I have. Thank you for your time, and we are happy to answer questions the Committee may have.

Chair Monroe-Moreno:

Thank you both so much for the presentation. Looks like Nevada is the central key to pulling all this together and filling that donut hole. Members, any questions for the presenters?

Senator Brooks:

Thank you, Chair. I just wanted to reference slide 12 that shows the doughnut hole turning into a cake. I wanted a reference that the north line as well as the cross-tie line, would not really have the same value and potentially would not even be feasible if we did not have Greenlink North and Greenlink West. Also, it would open access into the entire Pacific world and the Idaho Power and Bonneville Power world just by having those two built. It almost doubles, I believe, the directional capacity of the existing line just by increasing the capacity at those substations with Greenlink West and Greenlink North. While those four or five lines do not necessarily tell the whole story, they do indeed, fill that hole in the doughnut that you referenced. It starts a lot of energy capacity flowing through Nevada.

Mr. Dyer:

Cameron Dyer, for the record. Thank you, Senator Brooks. I think those are all very important points.

Chair Monroe-Moreno:

Members, any other questions, or comments? Seeing none, thank you all for joining today and for the great presentation. We are doing exciting things in Nevada that are going to have impact, not just Nevada but the Western region. I am excited about where we are going. Thank you so much for the presentation. That brings us to our final presentation today that concerns the economic benefits of a Western RTO. We have joining us, Sarah Steinberg, Principle, Advanced Energy Economy.

B. The Economic Benefits of a Western Regional Transmission Organization

Sarah Steinberg, Policy Principal, Advanced Energy Economy:

Thank you. I am Sarah Steinberg, for the record. I am a Policy Principal with Advanced Energy Economy. I want to thank the Committee for giving me time today on your packed agenda to talk about RTOs in the West. This is one of our favorite topics in the advanced energy economy. As many of you know, we are a clean energy industry association representing clean technology businesses and large energy buyers. We work on issues related to reliable and affordable energy transition in Nevada. I want to note here at the top that for the rest of this presentation (Agenda Item VII B) I will be talking about a full Western RTO, which reflects the market structure with the greatest degree of coordination around the West, and ideally the largest geographic footprint that is going to be to ensure the most benefits. A full RTO is what is now required by Nevada law by 2030. To start off, we want to congratulate Nevada on the significant progress that has been made toward the Western RTO, to date. This includes a huge thank you to Senator Brooks, the Growth and Infrastructure Committee, and Governor Sisolak for passing SB 448 last Session. The bill contained the strongest language supporting an RTO that we have seen to date in the West. The bill required utilities to join an RTO by 2030. This bill even beat Colorado to the same deadline by just a few days, which is very exciting for Nevada. We also want to commend NV Energy and the PUCN for supporting major, necessary investments in transmission, which is key to helping move low-cost clean energy from the places where it is most abundant, like Nevada to population centers. Nevada's leadership and the future leadership of the regional Transmission Coordination Task Force really puts the state in a crucial spot to help shape the conversation. Last time we talked about RTO before this Committee was back in January of 2020. As you will remember, the world looked different back then and these conversations were a lot more theoretical, but states and utilities are really moving now and discussing what this can and should look like. For all of you, for the governor, and

for other state leaders, I think that means not letting up on continuing monitoring developments, being active participants in conversations, and stepping up into leadership roles to ensure that the final market design does support Nevada's goals, including and especially its economic development and clean energy goals. This presentation is going to note those benefits. We stand ready to answer questions and support you in navigating the development moving forward.

To begin, you have heard a lot from the other presenters about what an RTO is and what it can provide. I will emphasize again an RTO is a competitive regional energy market that in essence is helping to ensure that the lowest cost energy, regardless of where it is generated around the West, is used to serve customer demand wherever that demand is and at reasonable costs and benefits to the buyers and sellers of that energy. An RTO is the platform that takes in all those available energy resources across the geographic footprint and distributes it more efficiently. Nevada based solar and geothermal resources will be able to be sold to the rest of the region even when there is no additional Nevada demand to serve, which brings economic benefits back home. It also means that Nevada will be able to tap into, for example, the wind energy of Wyoming when its solar resources are not producing. Marginal cost renewable resources can be brought online and integrated into our energy ecosystem, so long as they can be connected with energy demand. One other critical feature of an RTO as other presenters have mentioned, is that it can help coordinate long term planning of critical grid infrastructure like transmission and determine how the beneficiaries should share in those costs. Transmission is hard to build and expensive, but necessary for a reliable, resilient, and clean grid. An RTO is beneficial to developing that infrastructure. Ultimately, what this all means is that more solar and geothermal and other energy resources can be built in Nevada, which creates jobs and tax revenue for the host municipalities and counties. As you have seen from other presenters, Nevada is the hole in the West in terms of transmission, so the regional connectivity is going to require a lot of transmission construction in the state, which creates more jobs and revenue.

All of this, especially the improved grid efficiency and the coordinated planning, is going to add up to real monetary savings. A study that was led by Western state energy officials, including Nevada representatives from the Office of Energy, and PUCN found that the gross benefits of a full RTO can be up to \$2 billion by 2030, with \$45 million annually flowing directly to Nevada. One of the ways to do this is by simply reducing energy waste. Available low cost clean resources will be more effectively deployed and less likely to be curtailed or turned off because they cannot reach customers who have that demand. The low-cost resources are then displacing the production of energy from high-cost carbon fuel based generating plants that are more expensive to operate and that also expose energy customers to more volatile commodity pricing. It is something that is really being felt by ratepayers this winter in particular, as natural gas prices spike. The key here and one of the biggest takeaways I would like for all of you to have from this presentation is that Nevada has set out energy policy goals and legislation and its climate strategy in executive orders and in regulation. Going it alone is going to cost Nevada energy consumers more than necessary in both energy and infrastructure costs. Nevada would otherwise have to build and pay for everything itself. An RTO is the lowest cost pathway to a reliable, affordable, and clean energy feature for the State of Nevada.

This regional footprint is also key to ensuring the liability and resilience. Those two things together mean keeping the lights on under as close to all conditions as possible, and that means building out resources for all hours of the day, in all seasons, and to serve extremes when they happen. Those extremes are getting more and more extreme, like the prolonged heat waves that Nevada has experienced and some of its past summers. Regional collaboration through an RTO means that Nevada does not have to carry itself alone if a

severe temperature event hits Nevada and causes several its generators to go offline. An event may require a lot more energy to power up everyone's air conditioning (AC) unit for longer than expected. Nevada will still have access to energy from, for example Oregon, which maybe is experiencing different weather conditions. What happened in Texas last year is a good example that we talked about. Had Texas had this platform and infrastructure to share more energy across its borders, it might have been able to import energy when its own generation plants froze. This is not some be all and end all solution to reliability and resilience. There is a lot more work that needs to be done to support distributed energy resources and micro grids to keep homes, neighborhoods, and critical facilities running during different sorts of extremes, but it is really a key component to a grid that is ready to face the expected and unexpected, especially temperature extremes. And as you all know a reliable grid is key to economic health. Energy intensive businesses and industries, especially entertainment venues and data centers, need to be assured that their operations will not be adversely affected by grid conditions. This gives them confidence to operate in Nevada. Furthermore, large energy users like some of those that I just mentioned are often large employers, generally or sometimes prefer to site their businesses in regions where they are being served by an RTO. This is because an RTO provides more energy purchasing options for them to meet their sustainability or clean energy goals. Nearly half the largest publicly traded companies in this country today have clean energy commitments and that number is growing. Regional transmission organizations offer access to what we call virtual power purchase agreements, which is one of the primary vehicles for companies to procure clean energy, which require a renewable energy developer to be able to deliver their power into a wholesale market. Our tools also offer transparency into energy and capacity pricing, which helps craft green pricing programs. It is another avenue that companies can use to access and claim clean energy resources to match their goals. Regional Transmission Organizations offer more value streams for aggregated distributed energy resources. For example, solar on a home or business and storage and demand response are resources that can serve real grid needs while benefiting the resource owners. They are magnified when they can access an RTO. Finally, RTOs offer single transmission rate and better open access to the transmission system, which enables market entry for more cost competitive resources and better connects potential buyers and sellers of advanced energy resources.

All of this is to say that an RTO provides Nevada with a pathway towards its goals, while also benefiting the state's economy with both energy and non-energy jobs, lower cost, clean, reliable energy to serve Nevada customers. This is why I think you see support for the RTO provisions of SB 448 last Session coming from across the board, including businesses, clean energy developers, large energy users, environmental NGO's, and more. The logos here came from a signed letter in support of the legislation and its provisions to require utilities to join an RTO by 2030. Nevada is of course not the only state making moves towards an RTO. As I mentioned, a Colorado bill last session also required utilities to join an RTO by 2030. The Colorado Public Utilities Commission just determined an RTO to be in the public interest. The Oregon Department of Energy just published a report finding that more regional coordination would be beneficial for the state and region. Conversations continue to take place across various other venues, which include the Western Governors Association Committee on Regional Electric Power Cooperation and Western Interconnection Reserve Regional Advisory Board and between major utilities across the West, including NV Energy. Also, FERC Commissioners are fully supportive of a Western RTO and have indicated their willingness to let the West take the lead to design something new. Something that really works for the West and its unique needs. I think you know there were some questions earlier regarding what RTOs in other regions look like. We have learned a lot of good lessons from those RTOs. We can take the elements and use those, mix and

match, create new things all to serve this region. The West is really stepping up to do just that and should continue do so.

To close, I have listed several items the newly formed task force is going to study. We look forward to assisting it. This task force can maintain Nevada's leadership role as states discuss what this RTO and future RTOs in the West, and by the West, should look like. Nevada has a competitive advantage here because of its first mover status with the legislation and because of its geographic position. It is critical to making an RTO work and making sure those benefits are all realized across the entire West. We really do commend this Committee, the Legislature, and the governor for all the work to position Nevada today on this complicated, but critical topic. This work to establish something new is hard and difficult. There are different interests, in the different states, but keep up the momentum and keep up the conversation because an affordable, reliable, clean energy, grid really does require a Western RTO. I am happy to take any questions. Thank you so much.

Chair Monroe-Moreno:

Members, any questions for Miss Steinberg? That means you gave wonderful presentation. Senator Brooks, thank you for the work that you have been doing these past few sessions. As a member of the legislative body, I appreciate it. We had a packed agenda, but we got through fast.

AGENDA ITEM VIII—PUBLIC COMMENT

[Chair Monroe-Moreno called for public comment; however, no testimony was presented.]

Chair Monroe-Moreno:

I would like to thank all our presenters who were able to join us here today, and the members thank you for jumping on for our first meeting. As we have no one in our waiting room to make comment, this will conclude today's meeting.

Please check your calendar. Our next meeting is scheduled for March 9, 2022, and it will begin at 10:00 a.m. This meeting is adjourned. Have a great day.

AGENDA ITEM IX—ADJOURNMENT

There being no further business to come before the Joint Interim Standing Committee on Growth and Infrastructure, the meeting was adjourned at 1:42 p.m.

Respectfully submitted,

Christina Harper
Acting Manager of Research Policy
Assistants

Marjorie Paslov Thomas
Senior Principal Policy Analyst

APPROVED BY:

Assemblywoman Daniele Monroe-Moreno, Chair

Date: _____

MEETING MATERIALS

AGENDA ITEM	PRESENTER/ENTITY	DESCRIPTION
Agenda Item III	Marjorie Paslov Thomas, Senior Principal Policy Analyst	Committee Brief
Agenda Item IV	Stephanie Mullen, Executive Director, Public Utilities Commission of Nevada, (PUCN) Garrett Weir, Commission General Counsel, PUCN	Microsoft PowerPoint Presentation
Agenda Item V A	Cynthia Alejandre, Director, Contract Management and Special Programs, NV Energy	Microsoft PowerPoint Presentation
Agenda Item V B	Roberta Tapia, Program Specialist III, Workforce Investment Support Services, Employment Security Division, Department of Employment, Training and Rehabilitation	Microsoft PowerPoint Presentation
Agenda Item VI	Garrett Weir, Commission General Counsel, PUCN	Microsoft PowerPoint Presentation
Agenda Item VII A	Cameron Dyer, Managing Senior Staff Attorney, Western Resource Advocates (WRA) Vijay Satyal, Regional Energy Markets Manager, WRA	Microsoft PowerPoint Presentation
Agenda Item VII B	Sarah Steinberg, Policy Principal, Advanced Energy Economy	Microsoft PowerPoint Presentation
Agenda Item VII C	Carolyn C. Barbash, Vice President, Transmission Development and Policy, NV Energy Ryan Atkins, Director, Trading, Analytics and Operations, NV Energy	Microsoft PowerPoint Presentation

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NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 REQUEST DATE: 06-27-2024

REQUEST NO: Staff 84 KEYWORD: prayer for relief request
1(j); greenlink west
transmission project

REQUESTER: Danise RESPONDER: Lateef, Shahzad

REQUEST:

Reference: Prayer for Relief Request 1(j)

Question: Please explain whether NV Energy would continue to develop and construct the Greenlink West transmission project if the Commission were to deny NV Energy's Prayer for Relief 1(j). If not, please explain why not.

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENT CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

NV Energy intends to continue to develop and construct Greenlink West transmission project if the Commission were to deny NV Energy's Prayer for Relief 1(j) - Critical Facility designation of Greenlink West and Common Ties.

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 REQUEST DATE: 06-27-2024
REQUEST NO: Staff 88 KEYWORD: prayer for relief request 1(k); CWIP
accounting treatment
REQUESTER: Danise RESPONDER: Lateef, Shahzad

REQUEST:

Reference: Prayer for Relief Request 1(k)

Question: Please explain whether NV Energy would continue to develop and construct the Greenlink project if the Commission were to deny NV Energy's Prayer for Relief Request 1(k). If not, please explain why not. Additionally, please identify whether this Prayer for Relief refers to Greenlink West, Greenlink North, or both Greenlink projects.

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENT CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

NV Energy intends to continue to develop and construct Greenlink West transmission project if the Commission were to deny NV Energy's Prayer for Relief 1(k) - Construction Work in Progress accounting treatment of Greenlink Nevada Transmission project

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 REQUEST DATE: 06-27-2024

REQUEST NO: Staff 90 KEYWORD: prayer for relief request 1(l);
regulatory asset no carrying
charges

REQUESTER: Danise RESPONDER: Lateef, Shahzad

REQUEST:

Reference: Prayer for Relief Request 1(l)

Question: Please explain whether NV Energy would continue to develop and construct the Greenlink project if the Commission were to deny NV Energy's Prayer for Relief Request 1(l). If not, please explain why not. Additionally, please identify whether this Prayer for Relief refers to Greenlink West, Greenlink North, or both Greenlink projects.

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENT CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

As discussed in Behrens Direct Testimony Q&A 22-28, the requests for approval of a regulatory asset to record and include Greenlink depreciation expense was made in order to not financially harm the Companies for investments made for the benefit of its customers. Since this is a large transmission project and the ownership is being split between Nevada Power Company and Sierra Pacific Power Company, there is a financial strain on the Company until these assets are in rates.

If the Commission were to deny NV Energy's Prayer for Relief Request 1(l) – approval of a regulatory asset, with no carrying charges, to record and include Greenlink depreciation expense, the Companies will have to evaluate continued development and construction of all elements of

the Greenlink Nevada transmission project to ensure financial prudence. The Companies would have to evaluate the order in totality to determine an approach for continued development and construction of Greenlink Nevada transmission project. At this time, NV Energy has not yet made a determination to continue development and construction of the Greenlink Nevada transmission project if the Commission were to deny NV Energy's Prayer for Relief 1(l), in isolation.

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 REQUEST DATE: 06-27-2024

REQUEST NO: Staff 91 KEYWORD: prayer for relief request 1(j,
k, l); greenlink west north
both

REQUESTER: RESPONDER: Lateef, Shahzad

REQUEST:

Reference: Greenlink Project

Question: Please explain whether NV Energy could continue to develop and construct the Greenlink project if the Commission were to simultaneously deny Prayer for Relief Requests 1(j), 1(k), and 1(l). Additionally, please identify whether this Prayer for Relief refers to Greenlink West, Greenlink North, or both Greenlink projects.

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENT CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

As discussed in Behrens Direct Testimony Q&A 22-28, the requests for critical facility designation of Greenlink West and Common Ties (Greenlink North and Harry Allen - Northwest are already designated as critical facilities), approval of construction work in progress accounting treatment of all segments of Greenlink, and approval of a regulatory asset to record and include Greenlink depreciation expense were made in order to not financially harm the Companies for investments made for the benefit of its customers. Since this is a large transmission project and the ownership is being split between Nevada Power Company and Sierra Pacific Power Company, there is a financial strain on the Companies until these assets are in rates.

If the Commission were to deny NV Energy's Prayer for Relief Request 1(j) - request to designate Greenlink West and common ties as critical facilities, 1(k) - approval of construction work in

progress accounting treatment for all Greenlink segments, and 1(l) – approval of a regulatory asset, with no carrying charges, to record and include Greenlink depreciation expense, the Companies would have to evaluate continued development and construction of all elements of the Greenlink Nevada transmission project to ensure financial prudence. The Companies will have to evaluate the order in totality to determine an approach for continued development and construction of Greenlink Nevada transmission project. At this time, NV Energy has not yet made a determination to continue development and construction of the Greenlink Nevada transmission project if the Commission were to deny NV Energy's Prayer for Relief 1(j), 1(k), and 1(l) in isolation. These requests in the prayer are for all the phases of Greenlink, West, North and Common Ties.

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 REQUEST DATE: 07-09-2024

REQUEST NO: Staff 129 KEYWORD: greenlink; cwip rate base,
senate subcommittee on
growth and infrastructure may

REQUESTER: Danise RESPONDER: Behrens, Michael

REQUEST:

Reference: Greenlink Project

Question: During the Monday, May 17, 2021, meeting of the Senate Committee on Growth and Infrastructure, Doug Cannon, President and CEO of NV Energy, testified. " NV Energy is coming forward with private money and saying we are prepared to fund \$2.5 billion into the State. Shareholders do not recover on that money until that asset goes into service" and that " We will bring \$2.5 billion to the table. We will put thousands of people to work today, and Nevadans will not be asked to pay for this investment until at least five to six years down the road. Nevadans receive the benefits of that immediate economic investment."

1. Given that ratepayers must pay the return of and the return on NV Energy's investment in Greenlink, please reconcile Mr. Cannon's testimony to the Senate Committee on Growth and Infrastructure on May 17, 2021, to NV Energy's request for CWIP in rate base in the Instant Docket for the Greenlink Project.
2. Please provide NV Energy's projected timelines for filing a future general rate case for Nevada Power and Sierra Pacific if the Commission were to deny NV Energy's request for CWIP in rate base.
3. Please provide NV Energy's projected timelines for filing a future general rate case for Nevada Power and Sierra Pacific if the Commission were to approve NV Energy's request for CWIP in rate base.
4. Please provide Nevada Power and Sierra Pacific's profitability ratios or other metrics utilized in NV Energy's Authorization for Expenditure approval process for the Greenlink project(s) with and without CWIP in rate base.

RESPONSE CONFIDENTIAL (yes or no): No

ATTACHMENT CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

- 1) The CWIP in rate base is not the return of, it is partially a return on investment. Therefore, the Companies are not recovering the costs of the investment until CWIP is reflected in rates even with the Commission approval of CWIP in rate base proposal. Along the same lines, customers will not be paying for the investment of the asset, the CWIP in rate base is just a return on the cash put forward. Therefore the statements generally hold true. Lastly, there would need to be another filing to get the CWIP included into rates, therefore, it would be mid to late 2025, if not even 2026, before the CWIP in rate base is even in rates.
- 2) The timing of the rate cases is still being analyzed and not final, but Nevada Power rate case is currently planned to be in the first half 2025 and Sierra's rate case is currently planned in the mid to late 2026 timeframe.
- 3) Although not final, the Companies currently would not plan it to be different than what is proposed in #2 above.
- 4) The Companies do not have an AFE prepared for CWIP in rate base. However, if trying to analyze profitability, net income would be lower in the earlier years if CWIP in rate base is approved because the AFUDC would be replaced with CWIP in rate base return, which would provide revenue to the Companies sooner. The Companies also pay tax when revenue is collected, therefore, the Companies would be paying tax sooner in the CWIP in rate base scenario than we would in a scenario without CWIP in rate base where AFUDC is recorded.

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 REQUEST DATE: 08-13-2024

REQUEST NO: Staff 294 KEYWORD: staff 171 cancellation fee
transformers esmeralda
substation; \$4.2 million, gree

REQUESTER: Danise RESPONDER: Lateef, Shahzad

REQUEST:

Reference: Response to Staff DR 171

Question: In its response to Staff DR 171, NV Energy stated that it paid a \$1,414,400 cancellation fee for the two 525/230 kV transformers for the Amargosa substation and \$2,828,800 for two 525/230 kV transformers for the Esmeralda substation. These cancellation fees totaled approximately \$4.2 million. Please explain the disposition of the approximately \$4.2 million in cancellation fees. Additionally, please explain whether the \$4.2 million in cancellation fees is included in the Greenlink Nevada project costs.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

The fees in the amount of \$1,414,400 associated with the cancellation of 2 - 525/230 Amargosa substation transformers have been included in an invoice to the Companies. The Companies had already made milestone payments for the Amargosa transformers. Cancellation fees are offset against the milestone payments already made.

The expected fees in the amount of \$2,828,800 associated with cancellation of 2 - 525/230 Esmeralda substation transformers have not been invoiced to the Companies. The cancellation fees will be offset against the milestone payments already made for the Esmeralda transformers.

These cancellation fees are included in the Greenlink Nevada transmission project forecast provided in this docket. If the Companies execute interconnection agreements at Amargosa or

Esmeralda substations that require 230 kV infrastructure, the Companies will designate one or both 525/230 kV transformers from Lander Substation to Amargosa and/or Esmeralda Substations, and order new transformers for Lander Substation.

182 FERC ¶ 61,186
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Willie L. Phillips, Acting Chairman;
James P. Danly, Allison Clements,
and Mark C. Christie.

Nevada Power Company
Sierra Pacific Power Company

Docket No. EL22-73-000

ORDER GRANTING PETITION FOR DECLARATORY ORDER

(Issued March 22, 2023)

1. On June 30, 2022, Nevada Power Company (Nevada Power) and Sierra Pacific Power Company (Sierra Pacific) (together, NV Energy) filed a petition for declaratory order (Petition) seeking certain transmission rate incentives pursuant to section 219 of the Federal Power Act (FPA)¹ and Order No. 679² for the Greenlink Nevada Transmission Project (Greenlink Nevada or Project). Specifically, NV Energy requests that the Commission authorize it to recover: (1) 100% of its prudently-incurred costs if the Project is cancelled or abandoned, in whole or in part, for reasons beyond NV Energy's control (Abandoned Plant Incentive); (2) the deferral of 100% of the Project's prudently incurred pre-commercial costs through the creation of a regulatory asset (Regulatory Asset Incentive); and (3) the opportunity to include 100% of Construction Work in Progress (CWIP) in rate base (CWIP Incentive).³ As discussed below, we grant NV Energy's request for these three transmission rate incentives.

I. Background

A. Greenlink Nevada

2. NV Energy explains that Greenlink Nevada is planned to consist of two 525 kilovolt (kV) transmission lines and certain related facilities. NV Energy

¹ 16 U.S.C. § 824s.

² *Promoting Transmission Inv. through Pricing Reform*, Order No. 679, 116 FERC ¶ 61,057, *order on reh'g*, Order No. 679-A, 117 FERC ¶ 61,345 (2006), *order on reh'g*, 119 FERC ¶ 61,062 (2007).

³ With respect to the Regulatory Asset Incentive, NV Energy's current transmission rates are stated rates that are the result of a black box settlement.

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represents that the Greenlink North transmission line will consist of a 235-mile transmission line running in an east-west direction across northern Nevada between Fort Churchill Substation in Yerington, Nevada and Robinson Summit Substation in Ely, Nevada.⁴ NV Energy further represents that the Greenlink West transmission line will consist of a 358-mile transmission line segment running in a northwest-southeast direction across western Nevada between Fort Churchill Substation and Northwest Substation in Las Vegas, Nevada, and a 33-mile transmission line segment from Northwest Substation in Las Vegas to Harry Allen Substation in Las Vegas, as well as two renewable collector stations.⁵ NV Energy also explains that the Project will include three 345 kV common ties from the expanded Fort Churchill Substation in Yerington to the load pockets in the nearby Reno and Tracy, Nevada areas.⁶

3. NV Energy states that Greenlink Nevada's two 525 kV transmission lines will create a 525 kV triangular network throughout Nevada when combined with the existing 525 kV One Nevada Line connecting the Nevada Power and Sierra Pacific systems. According to NV Energy, Greenlink Nevada is the preferred transmission solution to address both reliability needs on NV Energy's transmission system, as well as to facilitate the achievement of the State of Nevada's renewable energy and decarbonization goals.⁷ NV Energy explains that Greenlink Nevada has a total estimated cost of over \$2.5 billion and is planned to be completed in two phases, with Greenlink West to enter service in late 2026 and Greenlink North to enter service in 2028.

4. On March 22, 2021, the Public Utilities Commission of Nevada (Nevada Commission) issued an order approving the permitting, design, land acquisition, and construction of the 358-mile segment of Greenlink West and the two collector stations, and two of the three 345 kV common ties.⁸ The Nevada Commission declined to grant Greenlink West a "critical facility" designation that would make the facility eligible for certain state incentive rate treatment. The Nevada Commission's March 2021 Order also

⁴ Petition at 1-2, 11, 14-15.

⁵ *Id.* at 1-2, 11-13.

⁶ *Id.* at 15-16.

⁷ *Id.* at 10.

⁸ See *Joint Application of Nevada Power Company d/b/a NV Energy and Sierra Pacific Power Company d/b/a NV Energy for approval of the fourth amendment to its 2018 Joint Integrated Resource Plan to update and modify the renewable portion of the Supply-Side Action Plan and the Transmission Action Plan*, Nevada Commission Docket No. 20-07023, (Mar. 22, 2021) (March 2021 Order); Petition at 12, 15-16. The March 2021 Order is attached to the Petition as Ex. NVE-0003.

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approved the conceptual design, permitting, and land acquisition—but not construction—of the 33-mile segment of Greenlink West, Greenlink North, and the third 345 kV common tie.⁹

5. In May 2021, the Nevada Legislature enacted Senate Bill 448,¹⁰ which requires utilities, including NV Energy, to file with the Nevada Commission a Transmission Infrastructure for a Clean Energy Economy Plan (TICEEP) to “incorporate into the resource plan a transmission infrastructure for a clean energy economy plan which sets forth a plan for the construction of high-voltage transmission infrastructure that will be placed into service not later than December 31, 2028.”¹¹

6. NV Energy submitted its TICEEP to the Nevada Commission in September 2021.¹² In January 2022, the Nevada Commission issued an order approving a stipulation resolving all issues concerning NV Energy’s TICEEP.¹³ The Nevada Commission’s January 2022 Order approved the development and construction of Greenlink North and the 33-mile segment of Greenlink West and provided these facilities with a critical facility designation.¹⁴

⁹ See Petition at 20, Ex. NVE-0003.

¹⁰ As relevant here, Senate Bill 448 amended Chapter 704 of the Nevada Revised Statutes, codifying new provisions at NEV. REV. STAT. §§ 704.79871-704.7988.

¹¹ NEV. REV. STAT. § 704.79877(1); see Petition at 8-9.

¹² See Petition at 9. An excerpt of NV Energy’s TICEEP Filing is attached to the Petition as Ex. NVE-0004.

¹³ See *Joint Amended Application of Nevada Power Company d/b/a NV Energy and Sierra Pacific Power Company d/b/a NV Energy for approval of their 2022-2041 Triennial Integrated Resource Plan, including the Transmission Infrastructure for a Clean Energy Economy Plan, and 2022-2024 Energy Supply Plan*, Nevada Commission Docket No. 21-06001, (Jan. 24, 2022) (January 2022 Order); Petition at 9. The January 2022 Order is attached to the Petition as Ex. NVE-0005.

¹⁴ See Petition at 15, Ex. NVE-0005 (granting application for approval of NV Energy’s TICEEP and accepting stipulation that authorizes NV Energy to commence development and construction of the transmission facilities that comprise Greenlink North and the smaller portion of Greenlink West and designates these facilities as critical facilities).

B. NV Energy Petition

7. NV Energy requests three transmission rate incentives under section 219 and Order No. 679: the Abandoned Plant, Regulatory Asset, and CWIP Incentives. NV Energy contends that the Commission has found that the Abandoned Plant Incentive reduces the regulatory risk of non-recovery of prudently incurred costs.¹⁵ NV Energy also asserts that the Commission has recognized that the Regulatory Asset and CWIP Incentives “both serve as useful tools to ease the financial pressures associated with transmission development by providing up-front regulatory certainty, rate stability and improved cash flow, which in turn can result in higher credit ratings and lower capital costs.”¹⁶

8. NV Energy argues that Greenlink Nevada satisfies the eligibility requirements to receive transmission rate incentives because the Project either ensures reliability or reduces the cost of delivered power by reducing transmission congestion. According to NV Energy, there is a nexus between the requested transmission incentives and the risks and challenges associated with the Project, and the requested package of incentives is narrowly tailored to address those risks and challenges.¹⁷

II. Notice of Filing and Responsive Pleadings

9. Notice of NV Energy’s Petition was published in the *Federal Register*, 87 Fed. Reg. 41,702 (July 13, 2022), with interventions and protests due on or before August 1, 2022. The Nevada Commission filed a notice of intervention on July 6, 2022. The Nevada Commission filed comments on August 1, 2022, as corrected on August 3, 2022 (Nevada Commission Comments).

10. Public Citizen, Inc. (Public Citizen) filed a motion to intervene on July 22, 2022, and a protest on August 1, 2022 (Public Citizen Protest).

11. The Office of the Nevada Attorney General, Bureau of Consumer Protection (Nevada Protection Bureau) filed a motion to intervene and protest on August 1, 2022 (Nevada Protection Bureau Protest).

¹⁵ Petition at 3 (citing *Promoting Transmission Inv. through Pricing Reform*, 141 FERC ¶ 61,129, at P 14 (2012) (2012 Policy Statement)).

¹⁶ *Id.* (citing 2012 Policy Statement, 141 FERC ¶ 61,129 at P 12).

¹⁷ *Id.* at 27-28.

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12. MGM Resorts International (MGM) and Caesars Enterprises Services, LLC (Caesars) filed a motion to intervene and protest on August 1, 2022 (MGM/Caesars Protest).

13. On August 3, 2022, Liberty Utilities (CalPeco Electric) LLC (CalPeco) filed a motion to intervene out of time.

14. On August 16, 2022, NV Energy filed a motion for leave to answer and answer to the protests (NV Energy Answer).

III. Discussion

A. Procedural Matters

15. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2022), the notice of intervention and the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d), we grant CalPeco's unopposed late-filed motion to intervene given its interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

16. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2022), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We accept NV Energy's Answer because it has provided information that assisted us in our decision-making process.

B. Substantive Matters

1. Section 219 and Order No. 679 Requirements

17. In the Energy Policy Act of 2005, Congress added section 219 to the FPA,¹⁸ directing the Commission to establish, by rule, incentive-based rate treatments to promote capital investment in electric transmission infrastructure.¹⁹ The Commission subsequently issued Order No. 679, establishing the processes by which a public utility may seek transmission rate incentives pursuant to section 219, including the incentives requested by NV Energy. Additionally, in the 2012 Policy Statement,²⁰ the Commission

¹⁸ 16 U.S.C. § 824s.

¹⁹ Pub. L. No. 109-58, § 1241, 119 Stat. 594 (2005).

²⁰ 2012 Policy Statement, 141 FERC ¶ 61,129.

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provided guidance regarding its evaluation of applications for transmission rate incentives under section 219 and Order No. 679.

18. Pursuant to Order No. 679, an applicant may seek to obtain incentive rate treatment for a transmission infrastructure investment that satisfies the requirements of section 219, i.e., the applicant must show that “the facilities for which it seeks incentives either ensure reliability or reduce the cost of delivered power by reducing transmission congestion.”²¹ Order No. 679 established a process for an applicant to demonstrate that it meets this standard, including the provision of a rebuttable presumption that the standard is met if: (1) the transmission project results from a fair and open regional planning process that considers and evaluates projects for reliability and/or congestion and is found to be acceptable to the Commission; or (2) a project has received construction approval from an appropriate state commission or state siting authority.²²

19. In addition to satisfying the section 219 requirement of ensuring reliability or reducing the cost of delivered power by reducing congestion, Order No. 679 requires an applicant to demonstrate that there is a nexus between the incentive sought and the investment being made.²³ In Order No. 679-A, the Commission clarified that the nexus test is met when an applicant demonstrates that the total package of incentives requested is “tailored to address the demonstrable risks or challenges faced by the applicant.”²⁴ Applicants must provide sufficient support to allow the Commission to evaluate each element of the package and the interrelationship of all elements of the package.²⁵

20. In the 2012 Policy Statement, the Commission reaffirmed that the Abandoned Plant, Regulatory Asset, and CWIP Incentives are among the financial and regulatory risk-reducing transmission incentives available pursuant to Order No. 679.²⁶

²¹ Order No. 679, 116 FERC ¶ 61,057 at P 76.

²² *Id.* P 58.

²³ *Id.* PP 48, 76.

²⁴ Order No. 679-A, 117 FERC ¶ 61,345 at P 27; *see also* 18 C.F.R. § 35.35(d) (2022).

²⁵ 2012 Policy Statement, 141 FERC ¶ 61,129 at P 10 (quoting Order No. 679-A, 117 FERC ¶ 61,345 at P 27).

²⁶ *Id.* PP 11-14.

a. **NV Energy Petition**

21. NV Energy states that Greenlink Nevada qualifies for the rebuttable presumption that the Project either ensures reliability or reduces the cost of delivered power by reducing transmission congestion.²⁷ NV Energy explains that Greenlink Nevada has received construction approval from the Nevada Commission. NV Energy states that the Nevada Commission found that Greenlink Nevada will significantly improve the reliability of NV Energy's transmission system, among other important benefits.

22. NV Energy points out that the Nevada Commission's March 2021 Order approved the permitting, design, land acquisition, and construction of the larger Greenlink West segment, two collector stations, and two of the three 345 kV common ties.²⁸ NV Energy further explains that its TICEEP filing with the Nevada Commission in September 2021 complied with Senate Bill 448 by seeking approval from the Nevada Commission for the construction of Greenlink North and the smaller segment of Greenlink West. NV Energy states that the Nevada Commission approved a stipulation among the parties to NV Energy's TICEEP proceeding, which provided, among other things, that NV Energy satisfied the requirements of Senate Bill 448 and would authorize NV Energy to commence development and construction of Greenlink North and the remaining segment of Greenlink West.²⁹ Thus, NV Energy concludes that the Nevada Commission has granted approvals for Greenlink Nevada, and the Commission should find that Greenlink Nevada satisfies the eligibility requirements (including the rebuttable presumption) to receive transmission rate incentives.

b. **Protests and Comments**

23. Nevada Protection Bureau states that it "does not support [NV Energy's] request for incentive rate treatment for the Greenlink Nevada project given that it will unnecessarily increase costs for Nevada's electric ratepayers," and notes that the addition of the \$2.5 billion cost of Greenlink Nevada would create significant upward pressure on the general rates paid by customers.³⁰ Nevada Protection Bureau also argues that NV Energy's retail customers are paying the highest rates they have ever paid and that the Commission should not grant incentive rate treatments to NV Energy when their customers are experiencing their highest bills ever. Nevada Protection Bureau also points

²⁷ Petition at 17-21.

²⁸ *Id.* at 18.

²⁹ *Id.* at 21.

³⁰ Nevada Protection Bureau Protest at 3, 8.

out that the Nevada Commission declined to grant Greenlink West a critical facility designation that would have made the facility eligible for certain state incentives.³¹

24. Nevada Protection Bureau also asserts that “Greenlink Nevada is mandated by NEV. REV. STAT. §§ 704.79871 to 704.7988 passed by the Nevada Legislature in 2021,” and provides the text of those statutory provisions in its Protest.³² Nevada Protection Bureau argues that NV Energy does not explain how consumers will benefit from transmission incentives for Greenlink Nevada where the Project is already mandated to be built.

25. MGM/Caesars likewise argue that the Commission should reject NV Energy’s request for transmission rate incentives. MGM/Caesars claim that NV Energy was the primary proponent of the Project and that incentives are unnecessary to encourage NV Energy to invest in Greenlink Nevada.³³ MGM/Caesars contend that the history of the Project shows that NV Energy has pushed to build the Project without the need for additional incentives. MGM/Caesars argue that, after the Nevada Commission’s March 2021 Order did not approve construction of Greenlink North or the smaller segment of Greenlink West,³⁴ NV Energy lobbied and convinced the Nevada Legislature to pass Senate Bill 448, which required NV Energy to file a TICEEP and further required the Nevada Commission to approve the TICEEP so long as the TICEEP met certain requirements. MGM/Caesars claim that the Senate Bill “granted NV Energy’s request to construct Greenlink North and the second sub-segment of Greenlink West.”³⁵ MGM/Caesars explain that the Nevada Commission’s January 2022 Order approved the stipulation approving NV Energy’s TICEEP, which included Greenlink North and the smaller segment of Greenlink West. MGM/Caesars argue that, because the Nevada Commission had no authority to review the prudence of Greenlink North or discretion to deny authorization for it, Greenlink Nevada does not qualify for the rebuttable presumption that section 219’s requirements have been met.³⁶ MGM/Caesars conclude

³¹ *Id.* at 9.

³² *Id.* at 4-7.

³³ MGM/Caesars Protest at 4-8.

³⁴ MGM/Caesars also point out that the Nevada Commission did not grant Greenlink West a critical facility designation that would make the Project eligible for state incentives. *Id.* at 3-4.

³⁵ *Id.* at 5.

³⁶ *Id.* at 6.

that this history demonstrates that NV Energy does not need encouragement to invest in Greenlink Nevada.

26. MGM/Caesars also contend that NV Energy fails to demonstrate a nexus between the incentives requested and the proposed investment, and how the incentives are tailored to address the risks and challenges the Project faces.³⁷ MGM/Caesars question NV Energy's assertions concerning the need for the requested incentives. MGM/Caesars claim that NV Energy has not made a demonstration adequate for the Commission to shift significant risk and unnecessary cost to customers.

27. Public Citizen argues that the Commission must disallow the requested rate incentives because NV Energy has not demonstrated that substantial challenges and risks make such incentives necessary.³⁸ Public Citizen contends that the Commission must consider whether transmission rate incentives are necessary to encourage new transmission investment, and further argues that incentives are unneeded because Senate Bill 448 imposes a mandate on NV Energy to build the Project.³⁹ Public Citizen states that NV Energy has "been ordered by the State of Nevada to build nearly 600 miles of 525 kV transmission lines, along with substations and three 345 kV transmission lines, known as Greenlink Nevada."⁴⁰ Public Citizen argues that a state mandate forcing NV Energy to construct the Project significantly mitigates risk for the utility, and, therefore, NV Energy does not need any of the three requested incentives.

28. Nevada Protection Bureau, MGM/Caesars, and Public Citizen further argue that granting incentives for Greenlink Nevada is inconsistent with representations made by NV Energy's Chief Executive Officer (CEO) in testimony to a committee of the Nevada Legislature leading up to the passage of Senate Bill 448.⁴¹ NV Energy's CEO stated, in part:

NV Energy is coming forward with private money and saying we are prepared to fund \$2.5 billion into the State. Shareholders do not recover on that money until that asset

³⁷ *Id.* at 8-10.

³⁸ Public Citizen Protest at 1, 5.

³⁹ *Id.* at 1, 3.

⁴⁰ *Id.* at 1. Throughout its Protest, Public Citizen refers interchangeably to NV Energy and its parent entity, Berkshire Hathaway.

⁴¹ Nevada Protection Bureau Protest at 15-16; MGM/Caesars Protest at 5-6; Public Citizen Protest at 4.

goes into service. When that asset goes into service, through a contested proceeding with the [Nevada Commission] where parties can intervene, every party is allowed to question every cost we put into the project. The [Nevada Commission] then sets how much of the investment we can recover and the rate we can earn on that asset.

We will bring \$2.5 billion to the table. We will put thousands of people to work today, and Nevadans will not be asked to pay for this investment until at least five to six years down the road. Nevadans receive the benefits of that immediate economic investment.⁴²

29. The Nevada Commission states that it agrees with NV Energy that Greenlink Nevada will improve reliability and reduce transmission congestion.⁴³ The Nevada Commission explains that it did not award state incentives for the Project when the Project was approved in the Nevada Commission proceedings, noting that the Nevada Commission must balance the state's renewable goals with the need for import capacity and cost. The Nevada Commission states that it "is taking a measured view of the impact that [state] incentives may have on customers of the utilities while recognizing the state statutory requirement to limit 'rate shock.'"⁴⁴ The Nevada Commission asks the Commission to consider the potential rate impacts to Nevada ratepayers as the Commission evaluates the Petition.

c. NV Energy Answer

30. NV Energy explains that, because the Nevada Commission granted construction approval for all portions of Greenlink Nevada through the March 2021 and January 2022 Orders, Greenlink Nevada qualifies for the rebuttable presumption of eligibility for incentives based on ensuring reliability.⁴⁵ NV Energy responds to MGM/Caesars' claim that Greenlink North did not receive construction approval, noting that Senate Bill 448 required the Nevada Commission to review the substance of NV Energy's TICEEP and

⁴² See *id.*; *Minutes of the Senate Committee on Growth and Infrastructure*, 81st session (Nevada, May 17, 2021) at 32 (statement of Doug Cannon, President and CEO of NV Energy).

⁴³ Nevada Commission Comments at 2.

⁴⁴ *Id.* at 4.

⁴⁵ NV Energy Answer at 3, 6-8.

that the Nevada Commission's January 2022 Order specifically stated that it granted construction approval.

31. NV Energy also argues that, not only does the Project qualify for a rebuttable presumption, it ensures reliability.⁴⁶ NV Energy explains that the Petition demonstrates that Greenlink Nevada will ensure reliability and address reliability challenges in Nevada,⁴⁷ and that the Nevada Commission's orders approving construction of the Project and the Nevada Commission's Comments filed in this proceeding note that Greenlink Nevada will address existing reliability issues.

32. NV Energy responds to protesters' assertions that, because Senate Bill 448 mandates construction of Greenlink Nevada, it is ineligible for incentives, arguing that both assertions are wrong.⁴⁸ NV Energy claims that protesters "cite no Commission authority for the notion that a transmission facility would be ineligible for incentives if [the project] were mandatory under state law," noting that many state laws generally obligate utilities to provide reliable service to customers, which, in turn, requires utilities to build certain transmission facilities.⁴⁹ NV Energy argues, instead, that a state mandate provides support for granting incentives because it demonstrates state recognition of the need for the project, consistent with the Commission's granting of a rebuttable presumption that a project is eligible for incentives when it has received construction approval from the appropriate state agency. NV Energy argues that, in any event, Senate Bill 448's "mandate here is more limited," noting that the statute contemplates the construction of transmission facilities, but that the statute's requirements "do not eliminate every risk."⁵⁰ NV Energy similarly contends that MGM/Caesars provide no support for the assertion that, because a public utility "pushed to build the project," it is ineligible for incentives.⁵¹

33. NV Energy also explains that it has demonstrated the nexus between the requested incentives and the Project, and that the requested incentives are tailored to the risks and

⁴⁶ *Id.* at 3-4, 8-10.

⁴⁷ *Id.* (citing Petition at 6-7, 17-21, Ex. NVE-0001).

⁴⁸ *Id.* at 11-12.

⁴⁹ *Id.* at 11.

⁵⁰ *Id.* at 12.

⁵¹ *Id.* (citing MGM/Caesars Protest at 5-8).

challenges of the Project.⁵² NV Energy claims that the incentives represent a “modest package” of incentives when considering the scope of Greenlink Nevada.⁵³ NV Energy also contends that protesters misstate the effect of its requested incentives on rates.⁵⁴ NV Energy states that it “does not intend to seek Greenlink Nevada recovery from customers with an effective date before 2025.”⁵⁵ NV Energy explains that its Petition seeks authorization for the Project to be eligible for incentives that could be applied at a later date and that none of the requested incentives, if approved, is self-effectuating. NV Energy explains that it will be required to make a filing under FPA section 205⁵⁶ to implement any of the incentives, and, therefore, the timing of any such filing would be made in accordance with NV Energy’s prior representations. NV Energy also points out that the Petition only applies to NV Energy’s wholesale (transmission-only) and large customers subject to the Commission’s jurisdiction and that NV Energy’s bundled retail customers are not impacted by the Petition.

34. NV Energy contends that the protesters raise irrelevant issues concerning rate impacts.⁵⁷ NV Energy also claims that protesters’ arguments concerning whether the Project has a state critical facility designation are irrelevant because such designation only affects eligibility for state incentives.

d. Commission Determination

35. The Commission has determined that, if a transmission project has received construction approval from an appropriate state commission or state siting authority, it is entitled to the rebuttable presumption established under Order No. 679.⁵⁸ In this case, the Project was granted construction authorization by the Nevada Commission. We are not persuaded by MGM/Caesars’ argument that, for purposes of this proceeding, the requirements of Senate Bill 448 undermine the fact that the Nevada Commission’s January 2022 Order authorizes construction of Greenlink North and the smaller segment

⁵² *Id.* at 12-14.

⁵³ *Id.* at 13.

⁵⁴ *Id.* at 20-21.

⁵⁵ *Id.* at 21.

⁵⁶ 16 U.S.C. § 824d.

⁵⁷ NV Energy Answer at 21-22.

⁵⁸ Order No. 679, 116 FERC ¶ 61,057 at P 58; *see also* 18 C.F.R. § 35.35(i)(1)(ii).

of Greenlink West. Therefore, we find that Greenlink Nevada is entitled to the rebuttable presumption established by Order No. 679.⁵⁹

36. With respect to protesters' arguments that Greenlink Nevada should be ineligible for incentives because NV Energy is required to construct the Project, we find that protesters have not demonstrated that Nevada law imposes such a requirement and therefore we do not need to further address these arguments. Although Nevada Protection Bureau argues that Greenlink Nevada "is mandated by Nevada statutes,"⁶⁰ and Public Citizen claims that "Sections 15-24 of [Senate Bill] 448 require [NV Energy] to build the Greenlink transmission line and place it into service by 2028,"⁶¹ neither party identifies specific statutory provisions or language that directs NV Energy to construct the Project. As NV Energy suggests, the statutory language contemplates a project, and the statute requires NV Energy to submit a TICEEP to the Nevada Commission.⁶² However, the statute by its terms does not contain a legal requirement to construct Greenlink Nevada, nor does it appear to attach negative legal consequences to failure to complete construction.⁶³

37. We also disagree with protesters' assertions that the representations by NV Energy's CEO to the Nevada Legislature preclude the grant of incentives for Greenlink Nevada.⁶⁴ Moreover, it is not clear that these representations were addressing Commission-jurisdictional rates.

⁵⁹ Furthermore, we note that the Nevada Commission filed comments stating that it agrees with NV Energy that Greenlink Nevada will improve reliability and reduce transmission congestion. Nevada Commission Comments at 2.

⁶⁰ Nevada Protection Bureau Protest at 7.

⁶¹ Public Citizen Protest at 3.

⁶² NEV. REV. STAT. § 704.79877(1).

⁶³ The stipulation approved by the Nevada Commission's January 2022 Order indicates that NV Energy complied with the requirements of Senate Bill 448 by seeking approval of the TICEEP. *See* Ex. NVE-0005.

⁶⁴ *See* Nevada Protection Bureau Protest at 15-16; MGM/Caesars Protest at 5-6; Public Citizen Protest at 4.

2. Abandoned Plant Incentive

a. NV Energy Petition

38. In requesting the Abandoned Plant Incentive, NV Energy seeks the ability to recover 100% of prudently incurred abandoned plant costs if Greenlink Nevada is abandoned or cancelled, in whole or in part, for any reason outside of NV Energy's control.⁶⁵ NV Energy states that there is a nexus between its request for the Abandoned Plant Incentive and the multi-billion-dollar investment in Greenlink Nevada. NV Energy states that there are significant regulatory risks because it will need to obtain numerous regulatory, siting, and permitting approvals for the Project from various federal, state, and local government bodies.⁶⁶ NV Energy explains that, even though the Nevada Commission has approved the Project, other permits, approvals, and authorizations are required to construct and own the Project. According to NV Energy, failure to obtain any of these regulatory approvals could lead to the abandonment of all or a portion of Greenlink Nevada.

39. Therefore, NV Energy states that the Commission should find that Greenlink Nevada faces significant regulatory risks that are beyond NV Energy's control and that granting the Abandoned Plant Incentive is reasonable because it mitigates the risks and challenges associated with the development and construction of Greenlink Nevada. NV Energy explains that, by reducing the risk of non-recovery in the event of forced cancellation of the Project, the Abandoned Plant Incentive would reduce financing costs because it provides protection for providers of capital against the low probability but high impact risk that circumstances outside of the control of NV Energy could prevent the Project from being completed.⁶⁷

b. Protests

40. Nevada Protection Bureau argues that the Nevada Commission has not granted an abandoned plant or any incentive for Greenlink Nevada and contends that this decision

⁶⁵ Petition at 22-25.

⁶⁶ NV Energy identifies four federal agencies from which it will need authorizations or permits, and two additional federal agencies from which it may need to obtain permits. NV Energy also identifies five state agencies that will need to issue permits, and NV Energy states that there are at least eleven municipal governments with permitting processes from which it will need to get approval.

⁶⁷ Petition at 25.

should be considered by the Commission in this proceeding.⁶⁸ Nevada Protection Bureau further argues that, because an abandoned plant would not be used and useful in providing electric service, it would be neither just nor reasonable to require consumers to pay for costs of such plant.

41. MGM/Caesars similarly claim that the Abandoned Plant Incentive violates the fundamental utility ratemaking principle that rates must be based on plant that is used and useful. MGM/Caesars argue that the particular facts of Greenlink Nevada demonstrate that the Abandoned Plant Incentive is inappropriate where NV Energy was a primary proponent of the Project and does not need to be encouraged with incentives to build the Project.⁶⁹ MGM/Caesars claim that NV Energy seeks to shift the risk of Project abandonment to customers, who, unlike NV Energy, are unable to manage the risk of cancelled plant.

42. MGM/Caesars also argue that, if the Commission does approve the Abandoned Plant Incentive, it should limit the incentive to the recovery of 50% of prudently incurred costs incurred where abandonment occurs for reasons entirely outside of NV Energy's control.⁷⁰ MGM/Caesars also contend that NV Energy should be required to submit financial modeling to the Commission of the rate impact to customers of the proposed incentive prior to an order being issued in this proceeding.

43. Public Citizen argues that the Abandoned Plant Incentive is inconsistent with historical utility regulatory practices that require utility rates to be based on the recovery of costs for plant that is used and useful.⁷¹

c. NV Energy Answer

44. NV Energy reiterates that it seeks the Abandoned Plant Incentive to help mitigate the risk of non-recovery of costs in the event of forced cancellation of the Project.⁷² NV Energy explains that, by reducing this risk, the incentive would reduce financing costs. NV Energy also clarifies that, if granted the incentive, it could only pursue

⁶⁸ Nevada Protection Bureau Protest at 11.

⁶⁹ MGM/Caesars Protest at 12-13.

⁷⁰ *Id.* at 13 (citing *Pac. Gas & Elec. Co.*, 160 FERC ¶ 61,018, at P 73 (2017)).

⁷¹ Public Citizen Protest at 2 (quoting *NextEra Energy Transmission Sw.*, 180 FERC ¶ 61,032 (2022) (Christie, Comm'r, concurring at PP 2-3)).

⁷² NV Energy Answer at 14-17.

recovery through a filing under section 205 demonstrating that the Project was abandoned for reasons outside of its control and that the costs were prudently incurred.⁷³

45. In response to Nevada Protection Bureau's argument that the Abandoned Plant Incentive is contrary to the principle that costs should be recovered only for plant that is used and useful, NV Energy notes that this is a "truism" of the Abandoned Plant Incentive, and that the used and useful principle is not applied in the context of a proposed recovery of abandoned plant costs.⁷⁴ Regarding Public Citizen's arguments regarding the Abandoned Plant Incentive, NV Energy notes that granting the Abandoned Plant Incentive would be consistent with the Commission's existing policies.⁷⁵

46. Responding to MGM/Caesars' argument that the Abandoned Plant Incentive puts risks that NV Energy can manage onto customers, NV Energy counters that the Abandoned Plant Incentive covers risks that NV Energy is unable to manage, and that the incentive benefits customers by decreasing financing costs and thereby exerting downward pressure on rates.⁷⁶ NV Energy also reiterates that, for the Abandoned Plant Incentive under section 219, NV Energy has demonstrated that Greenlink Nevada qualifies for the incentive at 100% of costs prudently incurred.

47. NV Energy also points out that, although it will procure equipment earlier in its process to keep the Project on schedule, the Abandoned Plant Incentive is only applicable from the date of the Commission's order granting the incentive.⁷⁷

d. Commission Determination

48. We grant NV Energy's request for the Abandoned Plant Incentive, effective as of the date of this order.⁷⁸ In Order No. 679, the Commission found that the Abandoned

⁷³ *Id.* at 15.

⁷⁴ *Id.* at 16.

⁷⁵ *Id.* (citing *NextEra Energy Transmission Sw.*, 180 FERC ¶ 61,032 at P 1; *id.* (Christie, Comm'r, concurring at P 1)).

⁷⁶ *Id.* at 17.

⁷⁷ *Id.* at 5 (citing *The Dayton Power & Light Co.*, 173 FERC ¶ 61,154, at P 16 (2020)).

⁷⁸ See *The Dayton Power & Light Co.*, 172 FERC ¶ 61,140, at P 69 (2020). While the Abandoned Plant Incentive granted by the Commission in this order is available only on a prospective basis, that does not foreclose the possibility of NV Energy seeking to recover 50% of its prudently incurred abandoned plant costs incurred before the effective

Plant Incentive is an effective means of encouraging transmission development by reducing the risk of non-recovery of costs in the event that a project is abandoned for reasons outside of the applicant's control.⁷⁹ We find that NV Energy has demonstrated that Greenlink Nevada faces certain regulatory, environmental, and siting risks that are beyond NV Energy's control and that could lead to the Project's abandonment, and that approval of the Abandoned Plant Incentive will address those risks. Thus, we find that NV Energy has demonstrated a nexus between the recovery of prudently incurred costs associated with potentially abandoned transmission projects and NV Energy's planned investment.

49. Consistent with Commission policy, the Abandoned Plant Incentive for Greenlink Nevada will be available to NV Energy for 100% of prudently-incurred costs expended on and after the date of this order if the Project is abandoned for reasons beyond NV Energy's control. We will not determine the justness and reasonableness of NV Energy's recovery of costs for abandoned electric transmission facilities, if any, until NV Energy seeks such recovery in a future FPA section 205 filing.⁸⁰ Order No. 679 specifically reserves the prudence determination for the subsequent section 205 filing that every utility that receives the Abandoned Plant Incentive is required to make if it seeks recovery of abandoned plant costs.⁸¹

50. We disagree with protesters that the used and useful principle renders the Abandoned Plant Incentive unjust and unreasonable. The Commission may depart from the used and useful principle,⁸² and granting the Abandoned Plant Incentive is consistent

date of this Abandoned Plant Incentive, consistent with prior precedent. *See id.* at n.85; *S. Cal. Edison Co.*, 172 FERC ¶ 61,241, at P 27 (2020); *New England Power Co.*, Opinion No. 295, 42 FERC ¶ 61,016, *order on reh'g*, Opinion No. 295-A, 43 FERC ¶ 61,285 (1988).

⁷⁹ Order No. 679, 116 FERC ¶ 61,057 at PP 163-166.

⁸⁰ *See Primary Power, LLC*, 131 FERC ¶ 61,015, at P 124 (2010).

⁸¹ Order No. 679, 116 FERC ¶ 61,057 at PP 165-166.

⁸² *See id.* P 117 n.77 (citing *Jersey Cent. Power & Light Co. v. FERC*, 810 F.2d 1168 (D.C. Cir. 1987) (internal citation omitted) (noting that, although a utility's rate base normally consists only of items presently "used and useful," a utility may include "prudent but cancelled investments" in its rate base as long as the Commission reasonably balances consumers' interests in fair rates against investors' interest in maintaining financial integrity and access to capital markets)); *Town of Norwood v. FERC*, 80 F.3d 526, 531 (D.C. Cir. 1996) (noting same).

with Commission policy.⁸³ Furthermore, we are unpersuaded that the Nevada Commission's decision not to grant certain state incentives should control our decision to grant incentives with respect to Commission-jurisdictional rates and facilities, particularly where, as here, we find that NV Energy has satisfied the requirements of Order No. 679.⁸⁴ Finally, the fact that NV Energy has advocated for the construction of Greenlink Nevada does not preclude it from seeking transmission rate incentives under Order No. 679, nor does it remove the risks and challenges identified by NV Energy. For these reasons, we find that NV Energy has made an adequate showing to satisfy the nexus test with respect to this incentive.

3. Regulatory Asset Incentive

a. NV Energy Petition

51. NV Energy seeks authorization to establish a regulatory asset for certain costs that NV Energy has incurred and will continue to incur prior to the Project's commercial operation date that do not meet the requirements to be included in CWIP (i.e., those costs not included in FERC Account 107).⁸⁵ NV Energy proposes to amortize the regulatory asset over a period of five years upon the commercial operation of the applicable segment of Greenlink Nevada. NV Energy also seeks authorization to accrue carrying charges on the regulatory asset balance at its cost of capital from the date that the Commission accepts the regulatory asset until the regulatory asset is fully amortized. NV Energy states that it will restrict the compounding of interest to ensure that such compounding does not result in a higher amount of interest than is allowed for Allowance for Funds Used During Construction (AFUDC), consistent with Commission precedent.

52. NV Energy states that the Regulatory Asset Incentive will allow it to recover costs that are incurred prior to the commercial operation date of Greenlink Nevada, and that its request is consistent with other regulatory assets approved by the Commission.⁸⁶

⁸³ See Order No. 679, 116 FERC ¶ 61,057 at P 163; *NextEra Energy Transmission Sw.*, 180 FERC ¶ 61,032 at P 19; *Pac. Gas & Elec. Co.*, 163 FERC ¶ 61,187, at P 14 (2018).

⁸⁴ See 18 C.F.R. § 35.35(i)(1)(ii); Petition at Ex. NVE-0003 (Nevada Commission March 2021 Order), Ex. NVE-0005 (Nevada Commission January 2022 Order).

⁸⁵ Petition at 25-26.

⁸⁶ *Id.* at 26 (citing *DesertLink, LLC*, 156 FERC ¶ 61,118, at PP 20-21 (2016); *Pioneer Transmission, LLC*, 126 FERC ¶ 61,281, at PP 77, 84 (2009), *order on reh'g and clarification*, 130 FERC ¶ 61,044 (2010)).

NV Energy contends that assurance of recovery of prudently incurred development costs is necessary for NV Energy to attract capital necessary to develop the Project.⁸⁷

b. Protests

53. Nevada Protection Bureau argues that denial of the Regulatory Asset Incentive will provide NV Energy with the upfront regulatory certainty it seeks.⁸⁸ Nevada Protection Bureau contends that the record does not indicate whether NV Energy is currently overearning on its Commission-jurisdictional rates, in light of the fact that NV Energy has not filed a federal rate case since 2013, and where NV Energy has been overearning on its Nevada-jurisdictional rates since 2013. Nevada Protection Bureau argues that the requested incentive that would allow NV Energy to engage in single-issue ratemaking is not in the public interest where NV Energy may be overearning on its current rates and NV Energy has not filed a general rate case in over nine years.

54. Nevada Protection Bureau requests that, if the Commission approves the Regulatory Asset Incentive and carrying charges, the carrying charges be set at the incurred cost of debt rather than the requested Commission-authorized cost of capital.⁸⁹ Nevada Protection Bureau claims that the definition of “regulatory asset” in the Uniform System of Accounts refers to the income statement, while equity is a balance sheet account, not an income statement account, which would make a carrying charge that includes a return on equity inconsistent with the definition of “regulatory asset.”

55. MGM/Caesars argue that NV Energy has not established that the Regulatory Asset Incentive balances its interests with those of consumers.⁹⁰ In particular, MGM/Caesars claim that NV Energy does not describe what costs are included in “pre-construction costs,” provide an estimate of those costs or rate impacts, or represent that it is not already recovering those costs in its current rates. MGM/Caesars also fault NV Energy for not explaining why five years is an appropriate period for recovery, why a carrying charge is appropriate, or why the cost of capital is an appropriate charge rather than a smaller carrying charge such as cost of debt. MGM/Caesars contend that without this information the Commission cannot approve the requested incentive.

⁸⁷ *Id.*, Ex. No. NVE-0006 (Direct Testimony of Michael Cole), at 7.

⁸⁸ Nevada Protection Bureau Protest at 11-14.

⁸⁹ *Id.* at 14.

⁹⁰ MGM/Caesars Protest at 13-14.

c. NV Energy Answer

56. NV Energy reiterates that the Regulatory Asset Incentive provides transmission developers with upfront regulatory certainty, reduces interest expenses, and assists in the construction of the proposed project.⁹¹ NV Energy also notes that Nevada Protection Bureau's arguments that NV Energy is overearning in its existing federal and state rates are misplaced because any purported overearning is irrelevant to the Commission's consideration of NV Energy's Petition for incentives in this proceeding. NV Energy explains that recovery of its proposed regulatory asset would not begin until Greenlink West, or a portion as determined to be used and useful, is energized. NV Energy further explains that, prior to recovery of costs in rates, NV Energy would need to submit a filing under section 205 with the Commission. NV Energy contends that granting the requested Regulatory Asset Incentive would be consistent with prior regulatory assets the Commission has granted.⁹² NV Energy claims that the Commission routinely allows regulatory assets to be amortized over a five-year period and authorizes the applicant to accrue carrying charges on the regulatory balance, and NV Energy's proposal is consistent with Commission policy and precedent.⁹³

d. Commission Determination

57. We grant NV Energy's request to establish a regulatory asset for prudently-incurred pre-commercial costs that are not capitalized and included in CWIP. In Order No. 679, the Commission determined that developers may defer and amortize pre-commercial operations costs that were not capitalized.⁹⁴ We find that this incentive addresses risks and challenges posed by the Project because this incentive will provide NV Energy with added up-front regulatory certainty and assist in attracting capital. We also find that arguments concerning potential overearnings under NV Energy's existing rates are beyond the scope of this proceeding.

58. In addition, we approve NV Energy's request to accrue a carrying charge on the regulatory asset balance at NV Energy's weighted average cost of capital, from the effective date of the regulatory asset until the asset is included in rate base, consistent

⁹¹ NV Energy Answer at 17-18.

⁹² *Id.* (citing *DesertLink, LLC*, 156 FERC ¶ 61,118, at PP 20-21; *Pioneer Transmission, LLC*, 126 FERC ¶ 61,281 at PP 77, 84).

⁹³ *Id.* at 18 (citations omitted).

⁹⁴ Order No. 679, 116 FERC ¶ 61,057 at P 122.

with Commission precedent.⁹⁵ While we acknowledge protesters' arguments that a regulatory asset should not include carrying charges,⁹⁶ the Commission allows companies to accrue carrying charges and recover such financing costs associated with regulatory assets for pre-commercial costs that are granted as incentives and to use both debt and equity for the calculation of the carrying charges, akin to the calculation of AFUDC related to construction projects.⁹⁷ Once NV Energy begins to include the regulatory asset in rate base as part of its revenue requirement, it will earn a return on the unamortized balance of the regulatory asset and, therefore, NV Energy must stop accruing carrying charges on such regulatory asset. Consistent with Commission precedent, the appropriate carrying charge should not result in a higher amount of interest than is allowed for construction expenditures that accrue an allowance for AFUDC, and the compounding of interest should be no more than semi-annually.⁹⁸ NV Energy must record all associated carrying charges by debiting Account 182.3 and crediting Account 421, Miscellaneous Nonoperating Income. We also accept NV Energy's proposal to amortize the regulatory asset over five years. NV Energy is authorized to amortize the regulatory asset recorded in Account 182.3, including the related carrying charges, for Greenlink Nevada by crediting Account 182.3, and charging the appropriate operation expense account, consistent with Commission precedent.⁹⁹

59. While this order provides NV Energy with the ability to record pre-commercial costs as a regulatory asset, NV Energy must make a future FPA section 205 filing to demonstrate that the pre-construction costs related to its transmission project are just and reasonable if it wishes to recover the regulatory asset in its transmission rates.¹⁰⁰ In that

⁹⁵ See *Pioneer Transmission, LLC*, 126 FERC ¶ 61,281 at P 84.

⁹⁶ See Nevada Protection Bureau Protest at 14 (arguing that a carrying charge that includes a return on equity is inconsistent with the definition of "regulatory asset" in the Uniform System of Accounts); MGM/Caesars Protest at 14 (arguing that NV Energy does not provide any explanation or analysis regarding "why a carrying charge is appropriate, or why the cost of capital is an appropriate carrying charge as opposed to a smaller carrying charge such as cost of debt that will have less impact on ratepayers").

⁹⁷ See *Pioneer Transmission, LLC*, 126 FERC ¶ 61,281 at P 84.

⁹⁸ See *DCR Transmission, LLC*, 153 FERC ¶ 61,295, at P 37 (2015); *Republic Transmission, LLC*, 161 FERC ¶ 61,036, at P 23 (2017).

⁹⁹ See *DCR Transmission*, 153 FERC ¶ 61,295 at P 37; *Republic Transmission*, 161 FERC ¶ 61,036 at P 23.

¹⁰⁰ See *Pioneer Transmission*, 126 FERC ¶ 61,281 at P 86; *Republic Transmission*, 161 FERC ¶ 61,036 at P 24.

filing, NV Energy must establish that the costs included in the regulatory asset are costs that would otherwise have been chargeable to expense in the period incurred but were deferred consistent with the authorization granted herein, and were not otherwise recovered, to ensure that this incentive does not result in double recovery of the same costs. Parties will be able to challenge these costs at that time.

4. CWIP Incentive

a. NV Energy Petition

60. NV Energy seeks authorization to recover 100% CWIP in rate base.¹⁰¹ NV Energy contends that the Commission has found that the CWIP Incentive can encourage transmission investment, provide up-front regulatory certainty and rate stability, improve cash flow, and reduce “rate shock” concerns in connection with the construction of large-scale transmission projects.¹⁰² NV Energy avers that there is a nexus between its request for the CWIP Incentive and its investment in Greenlink Nevada, which represents a significant transmission investment. According to NV Energy, Greenlink Nevada will be the largest transmission investment in NV Energy’s history, with a total estimated cost of more than \$2.5 billion. NV Energy claims that the expenditure of such large sums will create significant financial challenges and pressure on NV Energy’s cash flows, and that the CWIP Incentive will help alleviate financial risks and cash flow pressures that Greenlink Nevada will impose on NV Energy during the construction period.

61. NV Energy explains that the CWIP Incentive would support NV Energy’s ability to finance the construction of the Project and reduce the overall need to raise capital during the construction period.¹⁰³ In addition, NV Energy argues that the CWIP Incentive would help keep the costs of the Project lower because it would stop AFUDC from accruing into the capital costs for the CWIP amounts.¹⁰⁴ NV Energy also asserts that the cash flow from the CWIP Incentive will help NV Energy to raise equity and debt capital from investors who may otherwise be discouraged by the delay in recovery or the

¹⁰¹ Petition at 26-28.

¹⁰² *Id.* at 26 (citing Order No. 679-A, 117 FERC ¶ 61,345 at PP 106, 115, 117, & 163; 2012 Policy Statement, 141 FERC ¶ 61,129 at P 12).

¹⁰³ *Id.*, Ex. No. NVE-0006 (Direct Testimony of Michael Cole), at 8.

¹⁰⁴ *Id.*

debt and equity carrying costs of the Greenlink Nevada investments, while also reducing the need for NV Energy to obtain debt and equity financing.¹⁰⁵

62. NV Energy argues that granting the CWIP Incentive would result in greater rate stability for customers and ease burdens on NV Energy's transmission customers, thereby mitigating "rate shock" that could occur if the entire cost of the Project went into rates at one time when Greenlink Nevada begins commercial service.

63. NV Energy explains that, to implement the CWIP Incentive, NV Energy anticipates making a future rate filing with the Commission to change from the current "stated" transmission rate to a formula rate.¹⁰⁶ In addition, NV Energy states that, in connection with its request for the CWIP Incentive, NV Energy will have in place accounting procedures and internal controls to ensure that customers will not be double charged for AFUDC and CWIP, as required by sections 35.25(e) and (f) of the Commission's regulations, 18 C.F.R. § 35.25(e)-(f) (2022). NV Energy proposes to meet the requirement to make an annual filing with respect to its CWIP through the annual filing of FERC Form No. 730, Report of Transmission Investment Activity. NV Energy also requests a waiver of the Commission's other filing requirements related to CWIP, including 18 C.F.R. § 35.13(h)(38) (2022), which requires an applicant to submit Statement BM to describe its long-range program for providing reliable and economic power, 18 C.F.R. § 35.25(c)(4) (2022), which requires the development of forward-looking allocation ratios and an evaluation of potential anticompetitive effects of CWIP recovery, and 18 C.F.R. § 35.25(g), which requires additional information regarding anticompetitive impacts of CWIP recovery.

b. Protests

64. Nevada Protection Bureau argues that NV Energy's request for the CWIP Incentive is inconsistent with the May 17, 2021 testimony provided by NV Energy's CEO before a committee of the Nevada Legislature, where the CEO stated that NV Energy was prepared to fund \$2.5 billion with private money and Nevadans would not be asked to pay for Greenlink Nevada until at least five to six years later.¹⁰⁷ Nevada Protection Bureau further argues that the CWIP Incentive is contrary to the principle that the cost of utility plant is not recovered until the plant is placed in service and, therefore,

¹⁰⁵ *Id.* at 8-9.

¹⁰⁶ *Id.* at 9.

¹⁰⁷ Nevada Protection Bureau Protest at 15-16.

used and useful.¹⁰⁸ Nevada Protection Bureau points out that the Nevada Commission has not approved CWIP in rate base for NV Energy for Greenlink Nevada.

65. MGM/Caesars argue that NV Energy has not demonstrated that Greenlink Nevada warrants the CWIP Incentive, which is a departure from the ratemaking doctrine that rates should be based on plant costs that are used and useful.¹⁰⁹ MGM/Caesars contend that the CWIP Incentive is inappropriate because NV Energy was a leading proponent of Greenlink Nevada, represented that it would bring \$2.5 billion of private money to build the project, and will earn a significant return on its investment.¹¹⁰ MGM/Caesars claim that NV Energy has failed to provide any evidence that granting the requested CWIP Incentive would reasonably balance consumers' interests, particularly where NV Energy did not provide any analysis or projections of how the proposed incentives will impact customers' rates. MGM/Caesars also encourage the Commission to allow its processes in rulemaking proceedings where reforms to the CWIP Incentive are under consideration to unfold before granting NV Energy a CWIP Incentive.¹¹¹

66. Public Citizen argues that the Commission should consider NV Energy's corporate family in evaluating the Petition.¹¹² Public Citizen recites a number of figures related to Berkshire Hathaway, its capitalization, its ownership, and its corporate activities. Public Citizen claims that the Commission must look to the representations made in the 2013 application that requested authorization for a subsidiary of Berkshire Hathaway to acquire NV Energy, in which the applicants stated that the transaction would provide NV Energy with "increased financial stability" and "access to capital" for new investments in transmission.¹¹³

¹⁰⁸ *Id.* at 16.

¹⁰⁹ MGM/Caesars Protest at 14-15.

¹¹⁰ *Id.* at 15.

¹¹¹ *Id.* (referring to rulemaking proceedings in *Elec. Transmission Incentives Pol'y Under Section 219 of the Fed. Power Act*, Docket No. RM20-10, and *Elec. Reg'l Transmission Planning and Cost Allocation and Generator Interconnection*, Docket No. RM21-17).

¹¹² Public Citizen Protest at 4-6.

¹¹³ *Id.* at 5-6 (quoting Silver Merger Sub, Inc., NV Energy, Inc., Nevada Power Company, and Sierra Pacific Power Company, Joint Application for Authorization under Section 203 of the Federal Power Act, Docket No. EC13-128-000, at 2

67. Public Citizen argues that the CWIP Incentive is inconsistent with historical utility regulatory practices that require utility rates to be based on the recovery of costs for plant that is used and useful.¹¹⁴

c. NV Energy Answer

68. NV Energy reiterates that Greenlink Nevada is the largest transmission investment in NV Energy's history, is to be constructed over many years, and requires significant capital expenditures.¹¹⁵ NV Energy explains that the use of CWIP merely affects the timing of the cost recovery of new transmission investments, but does not allow the over-recovery of costs.¹¹⁶ NV Energy also contends that the Commission's focus in considering requests for transmission rate incentives is "'project-specific' and on the risks and challenges posed by the project to the public utility," and that, even if an entity and its corporate affiliates have a strong financial position, a project like Greenlink Nevada still poses significant challenges.¹¹⁷

69. NV Energy also states that its request for the CWIP Incentive does not mean that it will implement the incentive immediately. NV Energy explains that, if the incentive is granted, and if NV Energy chooses to include CWIP in rates, it must submit a section 205 filing in the future to implement the CWIP Incentive and recover costs.¹¹⁸

d. Commission Determination

70. We grant NV Energy's request to include 100% of CWIP for the Project in rate base. In Order No. 679, the Commission noted that this rate incentive treatment will further the goals of section 219 by providing up-front regulatory certainty, rate stability, and improved cash flow, reducing the pressure on an applicant's finances caused by

(filed July 12, 2013)). The Commission granted the requested authorization on December 19, 2013. *Silver Merger Sub*, 145 FERC ¶ 61,261 (2013).

¹¹⁴ *Id.* at 2 (quoting *NextEra Energy Transmission Sw.*, 180 FERC ¶ 61,032 (Christie, Comm'r, concurring at PP 2-3)).

¹¹⁵ NV Energy Answer at 18-19.

¹¹⁶ *Id.* at 19 (citing Order No. 679, 116 FERC ¶ 61,057 at P 29).

¹¹⁷ *Id.* (citing *DesertLink, LLC*, 156 FERC ¶ 61,118 at P 11).

¹¹⁸ *Id.*

investing in transmission projects.¹¹⁹ The Commission has also found that allowing companies to include 100% of CWIP in rate base would result in greater rate stability for customers by reducing the “rate shock” when certain large-scale transmission projects become operational.¹²⁰

71. We find that NV Energy has shown a nexus between the proposed CWIP Incentive and its investment in Greenlink Nevada. The Project is expected to cost approximately \$2.5 billion, which will significantly increase NV Energy’s transmission rate base. The cost for completing the Project will put pressure on NV Energy’s finances. Granting the CWIP Incentive will help ease this pressure by providing upfront certainty, improved cash flow, and reduced interest expense as NV Energy proceeds with Greenlink Nevada. Furthermore, we evaluate the Petition’s requests within the context of the public utility requesting the incentives and the proposed project—here, NV Energy and Greenlink Nevada—without considering the financial resources of NV Energy’s corporate parent or affiliates, consistent with our precedent and practice.¹²¹

72. As noted above, we are not persuaded that representations by NV Energy’s CEO to the Nevada Legislature preclude the grant of incentives, including the CWIP Incentive, for Greenlink Nevada.¹²² It is not clear that these statements were addressing Commission-jurisdictional rates. Moreover, as NV Energy explains, the CWIP Incentive is not self-effectuating, and NV Energy will need to submit a filing or filings to implement its CWIP Incentive to recover any costs in rates.

73. Similar to our determination above concerning the Abandoned Plant Incentive, we decline to find that the used and useful principle precludes granting the CWIP Incentive. The recovery of CWIP is a recognized departure from the used and useful principle for cost recovery,¹²³ and granting the CWIP Incentive is consistent with current Commission

¹¹⁹ Order No. 679, 116 FERC ¶ 61,057 at P 115.

¹²⁰ 2012 Policy Statement, 141 FERC ¶ 61,129 at P 12 (citations omitted).

¹²¹ See *MidAmerican Cent. Cal. Transco*, 147 FERC ¶ 61,179, at P 46 (2014).

¹²² See Nevada Protection Bureau Protest at 15-16; MGM/Caesars Protest at 5-6; Public Citizen Protest at 4.

¹²³ See Order No. 679, 116 FERC ¶ 61,057 at P 117 (finding that the “used and useful” principle is not a sufficient basis to deny adoption of the CWIP incentive); *Construction Work in Progress for Public Utilities; Inclusion of Costs in Rate Base*, Order No. 298, FERC Stats. & Regs ¶ 30,524, at 30,507 (1983) (cross-referenced at 23 FERC ¶ 61,224) (noting that there are “widely recognized exceptions and departures from [the used and useful] rule, particularly when there are countervailing public interest considerations”); *Allegheny Energy, Inc.*, 116 FERC ¶ 61,058, at PP 76-79 (2006) (noting

policy. The fact that NV Energy has advocated for the construction of Greenlink Nevada does not preclude NV Energy from seeking incentives, and NV Energy's advocacy does not mean that NV Energy and Greenlink Nevada do not face risks and challenges or that NV Energy and its customers will not benefit from the CWIP Incentive.

74. Companies may accrue AFUDC on eligible construction expenditures appropriately recorded in Account 107, Construction Work in Progress, or include those expenditures in rate base when authorized by the Commission. This practice compensates the company for the cost of financing a construction project. However, it would be inappropriate to accrue AFUDC and also include in rate base any amounts charged to Account 107. NV Energy indicates that it will not accrue AFUDC in Account 107 for the Project during its development and construction, and we find that NV Energy has demonstrated that it has the appropriate accounting controls and procedures to prevent the accrual of AFUDC on CWIP costs that are already included in rate base.¹²⁴ Hence, our determination here is conditioned upon NV Energy fulfilling the Commission's requirements for CWIP inclusion for the Project in its future section 205 filings. Any requests for waivers of the Commission's regulations with respect to filing requirements can be made at that time.

5. Total Package of Incentives

a. NV Energy Petition

75. NV Energy argues that the requested package of incentives is narrowly tailored to address the specific challenges it faces in developing the Project.¹²⁵ NV Energy claims that the requested incentives are appropriate for the large investment being made and the special risks and challenges associated with the Project.

76. NV Energy explains that each requested incentive is designed to address a particular risk associated with the development and construction of Greenlink Nevada.¹²⁶

that the departure from the used and useful doctrine is appropriate and ultimately serves to sustain existing used and useful facilities).

¹²⁴ See *Constr. Work in Progress for Pub. Utils.; Inclusion of Costs in Rate Base*, Order No. 298, FERC Stats. & Regs. ¶ 30,455, (cross-referenced at 23 FERC ¶ 61,224), *order on reh'g*, Order No. 298-B, FERC Stats. & Regs. ¶ 30,524 (cross-referenced at 25 FERC ¶ 61,375) (1983); see also *So. Cal. Edison Co.*, 161 FERC ¶ 61,107, at PP 32, 35 (2017).

¹²⁵ Petition at 28-29.

¹²⁶ *Id.* at 29.

NV Energy states that the Abandoned Plant Incentive will mitigate the risk of unrecovered costs in the event the Project is abandoned or cancelled for reasons outside of its control. NV Energy argues that the Regulatory Asset Incentive is designed to allow it to recover certain pre-commercial operation costs, providing regulatory certainty, rate stability, and improved cash flow. NV Energy claims that the CWIP Incentive will provide enhanced cash flow during the construction period of the Project and ensure greater certainty and rate stability.

b. MGM/Caesars Protest

77. MGM/Caesars argue that NV Energy's proposed suite of incentives are duplicative and would result in a significant potential unnecessary increase in risk and costs for customers.¹²⁷ MGM/Caesars contend that, while cases cited by NV Energy may support granting the particular incentive, in the cases cited, the Commission approved only one or two incentives, and not the duplicative incentives sought by NV Energy. MGM/Caesars argue that, even if the Commission finds that some incentives are appropriate for Greenlink Nevada, the Commission should require NV Energy to provide additional data and analysis establishing a nexus for each incentive, and narrow the incentives it grants in a manner that appropriately balances NV Energy's and customers' interests.

c. NV Energy Answer

78. NV Energy responds to MGM/Caesars by arguing that the requested incentives are not duplicative but rather that each requested incentive addresses a separate risk, and that the requested incentives will work together to reduce the significant financial pressures associated with the Project.¹²⁸ NV Energy explains that the Abandoned Plant Incentive addresses the risk of the Project being cancelled for reasons beyond NV Energy's control. NV Energy further explains that the Regulatory Asset and CWIP Incentives do not address that risk, but instead address cash flow risks related to pre-operation costs and attendant rate stability and financing issues, and each covers separate sets of costs. NV Energy concludes that, together, the requested incentives function as an integrated package.

d. Commission Determination

79. We find that the total package of incentives sought by NV Energy is tailored to address the risks and challenges that NV Energy faces in undertaking the Project. As noted above, in Order No. 679-A, the Commission clarified that its nexus test is met

¹²⁷ MGM/Caesars Protest at 11-12.

¹²⁸ NV Energy Answer at 20.

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when an applicant demonstrates that the total package of incentives requested is tailored to address the demonstrable risks or challenges faced by the applicant.¹²⁹ Applicants must provide sufficient support to allow the Commission to evaluate each element of the package and the interrelationship of all elements of the package.¹³⁰ The Commission noted that this nexus test is fact-specific and requires the Commission to review each application on a case-by-case basis. The Commission has, in prior cases, approved multiple rate incentives for particular projects where appropriate.¹³¹ We find that NV Energy has demonstrated that each of the requested incentives, and the incentives package as a whole, address the risks and challenges faced by NV Energy in undertaking the Project.

The Commission orders:

NV Energy's Petition for transmission rate incentives is hereby granted, as discussed in the body of this order.

By the Commission. Commissioner Christie is concurring with a separate statement attached.

(S E A L)

Debbie-Anne A. Reese,
Deputy Secretary.

¹²⁹ Order No. 679-A, 117 FERC ¶ 61,345 at P 40; 2012 Policy Statement, 141 FERC ¶ 61,129 at P 10.

¹³⁰ 2012 Policy Statement, 141 FERC ¶ 61,129 at P 10 (quoting Order No. 679-A, 117 FERC ¶ 61,345 at P 40).

¹³¹ See *WPPI Energy*, 151 FERC ¶ 61,246, at P 35 (2015); see also Order No. 679, 116 FERC ¶ 61,057 at P 55 (explaining that an applicant may request any combination of incentives identified in the final rule).

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Nevada Power Company
Sierra Pacific Power Company

Docket No. EL22-73-000

(Issued March 22, 2023)

CHRISTIE, Commissioner, *concurring*:

1. Today's order is consistent with the Commission's existing policies regarding the CWIP Incentive and the Abandoned Plant Incentive, as articulated in Order No. 679;¹ thus, I will concur rather than dissent. This order illustrates, however, why I believe the Commission needs to revisit the array of incentives offered to transmission developers, including the CWIP Incentive and Abandoned Plant Incentive addressed in this order as well as the RTO participation adder.²

2. A core principle of utility law and regulation for decades is that consumers can only be forced to pay costs for assets that are "used and useful" to them. In Order No. 679, the Commission determined that it may be necessary to depart from this long-standing ratemaking principle to "address the substantial challenges and risks in constructing new transmission."³ In my concurrences to prior orders in which the Commission granted the Abandoned Plant Incentive to NextEra Energy Transmission Southwest, LLC for its investments in projects in SPP, I questioned, among other concerns, whether the Commission's determination of whether "substantial challenges and risks" exist when granting the Abandoned Plant Incentive and other incentives has become nothing more than a check-the-box exercise.⁴

¹ *Promoting Transmission Investment through Pricing Reform*, Order No. 679, 116 FERC ¶ 61,057, *order on reh'g*, Order No. 679-A, 117 FERC ¶ 61,345 (2006), *order on reh'g*, 119 FERC ¶ 61,062 (2007).

² I recognize that the RTO participation adder is not at issue in this proceeding.

³ Order No. 679, 116 FERC ¶ 61,057 at PP 26, 117.

⁴ *NextEra Energy Transmission Sw., LLC*, 178 FERC ¶ 61,082 (2022) (Christie, Comm'r, concurring at P 2) (February 2022 Concurrence), <https://www.ferc.gov/news-events/news/commissioner-mark-c-christie-concurrence-nextera-energy-transmission-southwest-llc>; *NextEra Energy Transmission Sw., LLC*, 180 FERC ¶ 61,032 (2022) (Christie, Comm'r, concurring at P 2) (July 2022 Concurrence), <https://www.ferc.gov/news-events/news/commissioner-christies-concurrence-nextera->

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3. As I noted previously:

The Commission’s incentive policies—particularly the CWIP Incentive, which allows recovery of costs *before* a project has been put into service—run the risk of making consumers “the bank” for the transmission developer; but, unlike a real bank, which gets to charge interest for the money it loans, under our existing incentives policies the consumer not only effectively “loans” the money through the formula rates mechanism, but also pays the utility a profit, known as Return on Equity, or “ROE,” for the privilege of serving as the utility’s *de facto* lender.⁵

Further, just as the CWIP Incentive effectively makes consumers the bank for transmission developers, the Abandoned Plant Incentive effectively makes them the insurer of last resort as well. This incentive allows transmission developers to recover from consumers the costs of investments in projects that fail to materialize and thus do not benefit consumers. Just as consumers receive no interest for the money they effectively loan transmission developers through CWIP, they receive no premiums for the insurance they provide through the Abandoned Plant Incentive if the project is never built. And if the CWIP Incentive is a *de facto* loan and the Abandoned Plant Incentive is *de facto* insurance — both provided by consumers — then the RTO participation adder, which increases the transmission owner’s ROE above the market cost of equity capital, is an involuntary gift from consumers.⁶ There is something really wrong with this picture.

[energy-transmission-southwest-llc](#).

⁵ February 2022 Concurrence at P 3 (emphasis in original); July 2022 Concurrence at P 3 (citation omitted); *see also Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generation Interconnection*, 179 FERC ¶ 61,028 (2022) (Transmission Planning and Cost Allocation NOPR) (Christie, Comm’r, concurring at P 15) (“CWIP is, of course, passed through as a cost to consumers, making consumers effectively an involuntary lender to the developer. . . . Consumers should be protected from paying CWIP costs during this potentially long period before a project actually enters service, if it ever does.”), <https://www.ferc.gov/news-events/news/commissioner-christies-concurrence-e-1-regional-transmission-planning-and-cost>.

⁶ *See, e.g., Rockland Elec. Co.*, 178 FERC ¶ 61,232 (2022) (Christie, Comm’r, concurring at P 4), <https://www.ferc.gov/news-events/news/commissioner-christies-concurrence-rockland-electric-er22-910>.

4. As this Commission considers other potential reforms related to regional transmission planning and development, it is imperative that incentives like the CWIP Incentive, Abandoned Plant Incentive, and RTO participation adder are all revisited to ensure that all the costs and risks associated with transmission construction are not unfairly inflicted on consumers while transmission developers and owners stand to gain all the financial reward. Moreover, if the Commission determines it is appropriate to channel risks to consumers, those risks must be carefully weighed and considered and not simply awarded in an exercise of “check-the-box.”

5. Indeed, rising transmission costs are not going unnoticed at the state level. Even here, the Office of the Nevada Attorney General, Bureau of Consumer Protection (Nevada Protection Bureau), as well as the Public Utilities Commission of Nevada (Nevada Commission) have raised concerns regarding rising transmission rates and their impact on Nevada ratepayers. Nevada Protection Bureau protests NV Energy’s request for incentive rate treatment for the Greenlink Nevada Transmission Project (Greenlink Nevada project) “given that it will unnecessarily increase costs for Nevada’s electric ratepayers.”⁷ Nevada Protection Bureau represents that the two NV Energy companies, Nevada Power Company and Sierra Pacific Power Company, “had a combined \$1.6 billion [] in net transmission plant-in-service at the end of 2021” and that “[t]he addition of the \$2.5 billion [] Greenlink Nevada project is going to create significant upward pressure on the general rates paid by customers of the Nevada electric utilities.”⁸ Nevada Protection Bureau questions how it is just and reasonable to require consumers to pay for the costs of a plant that is not used and useful in providing electric service to them.⁹ The Nevada Commission also asks that the Commission consider the potential rate impacts to Nevada ratepayers in its evaluation,¹⁰ on which the order is conspicuously silent.

6. Early in 2021, a majority of this Commission voted to approve a supplemental notice of proposed rulemaking which proposed, among other things, to limit the RTO participation adder to the three years following a transmitting utility’s initial membership in an RTO.¹¹ I joined in that vote and continue to support such a time limit. That

⁷ Nevada Protection Bureau Protest at 3.

⁸ *Id.* at 8.

⁹ *Id.* at 11.

¹⁰ Nevada Commission Comments at 2. In fact, it is not clear what the rate impact of the CWIP Incentive will be because NV Energy currently has stated rates subject to a black box settlement and must first file for formula rate treatment as well as a cost of capital. *See* Petition at 26 n.107; *id.*, Exhibit No. NVE-0006 (Direct Testimony of Michael Cole), at 9.

¹¹ *Electric Transmission Incentives Policy Under Section 219 of the Federal*

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supplemental notice of proposed rulemaking remains pending. Likewise, the Commission proposed to eliminate the CWIP Incentive in its April 2022 Transmission Planning and Cost Allocation NOPR, a proposal I continue to strongly support.¹² It is clear that the Commission's procedures and criteria for awarding the Abandoned Plant Incentive should also be reconsidered. Revisiting all these incentives is imperative at a time of rapidly rising customer power bills, as demonstrated by the Nevada Protection Bureau.

For these reasons, I concur.

Mark C. Christie
Commissioner

Power Act, Supplemental Notice of Proposed Rulemaking, 175 FERC ¶ 61,035, at P 9 (2021).

¹² Transmission Planning and Cost Allocation NOPR, 179 FERC ¶ 61,028 at P 333 & n.530.

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 **REQUEST DATE:** 08-09-2024
REQUEST NO: Staff 268 **KEYWORD:** behrens QA28; FERC approval
CWIP rate base greenlink EL-
22-73, rate base recover
REQUESTER: Danise **RESPONDER:** Behrens, Michael

REQUEST:

Reference: Behrens Q&A 28

Question: In Q&A 28 of his Direct Testimony, Mr. Behrens states that NV Energy received FERC approval for CWIP in rate base for the Greenlink Nevada Project in FERC Docket No. EL-22-73. Please explain when NV Energy will begin to recover the FERC-approved CWIP in rate base from FERC jurisdictional customers.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

In Docket No. EL-22-73, FERC approved eligibility of NV Energy's Greenlink Nevada transmission project for incentives, including CWIP. To receive CWIP accounting treatment of Greenlink project in the rate base, NV Energy would need to file an application with FERC seeking an approval of CWIP in the rate base. NV Energy has not made such a filing to date, nor has it determined the timing of such filing, if any. Should NV Energy seek an adjustment to its OATT transmission rate-base, including the incorporation of CWIP for Greenlink, the new transmission rates would become effective as determined by FERC. NV Energy will determine the timing of a potential FERC filing for CWIP once the PUCN issues a ruling on NV Energy's request for CWIP accounting treatment for retail customers, as requested in this docket.

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO:	24-05041	REQUEST DATE:	09-03-2024
REQUEST NO:	Staff 345	KEYWORD:	EEL letter filed in ohio july 31, 2024; data center load
REQUESTER:	Sinclair	RESPONDER:	Pascal, Misha (NV Energy)

REQUEST:

Reference: Data Center Loads

Question: Please refer to the letter produced by EEI to the Public Utilities Commission of Ohio filed on July 31, 2024, and attached hereto for convenience.

As a member of EEI, does NV Energy agree with the portion of the comments EEI filed in OHIO in the AEP Data Center tariff proceeding, in which EEI states that "the Commission must ensure the costs of the facilities that need to be constructed to serve the data center load will not be inappropriately shifted to other customers in the event that the data center load does not materialize or is cancelled"? If NV Energy does not support those EEI comments please explain why not?

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

As a member of EEI, NV Energy agrees with the principles outlined in EEI's comments filed with the Public Utilities Commission of Ohio in the AEP Data Center tariff proceeding. NV Energy generally agrees that utility regulators should ensure that the costs of constructing facilities for new data centers (just like any other facilities) are not unfairly shifted to other customers if the expected loads fail to materialize or if a project is canceled. AEP Ohio's proposal to require data centers to commit to paying for a sufficient percentage of their forecasted demand each month is one way to potentially achieve this goal. However, while this proposed tariff may be appropriate in AEP's service territory, NV Energy's Rule 9 already contains provisions and flexibility to ensure that the costs of constructing facilities for new data centers are not unfairly shifted to other

customers if the expected loads fail to materialize or if a project is canceled. Over decades of working with high demand customers like mining operations and casinos, the Companies, stakeholders and the Commission have developed risk protocols within Rule 9 to protect all customers in Nevada. These provisions include: :

- applying abnormal risk provisions to the applicable agreements,
- requiring security for up to 100% of the utility investment,
- requiring an advance subject to potential refund,
- implementing a phased approach to construct transmission infrastructure over time as the load materializes,
- establishing agreement milestones to ensure the Applicant and Company are progressing together,
- implementing reduction of service charge provisions in case an Applicant's load is short, and
- for those customers already in service, obtaining annual updated load forecasts to advise transmission planning studies so models reflect actual loads and revised customer stated load forecasts, and supplemental phases/projects are only triggered when required.

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 REQUEST DATE: 09-06-2024

REQUEST NO: Staff 354 KEYWORD: churchill-comstock
meadows; include block wall
addition project costs

REQUESTER: Sinclair RESPONDER: Pottey, Charles (NV Energy)

REQUEST:

Reference: Churchill-Comstock Meadows

Question: During the Staff transmission field audit for the Sierra Pacific GRC proceeding, Docket No. 24-02026 on April 16, 2024, NV Energy employees stated that additional 345 kV lines coming into the Comstock Meadows substation would trigger the need for a block wall security perimeter similar to the East Tracy Wall which costs in excess of \$6 million. Given this fact please provide the following:

A: Please explain in detail if the costs for the block wall addition are included in either Churchill-Comstock Meadows 345 kV line #1 or Line #2 projects? If the costs have not been included, please explain why not.

B: Please explain which Churchill-Comstock Meadows line (Line #1 or Line #2) triggers the need for the block wall addition.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

The NV Energy 2023 CIP-014 studies do not show the need for a block wall around the Comstock Meadows substation. The CIP-014 study impact rating criteria rate Comstock Meadows as a medium impact substation. These studies included both the Ft. Churchill-Comstock Meadows 345 kV line #1 and Line #2. For a block wall to be required, the substation would have to be rated as Critical Impact in the CIP-014 studies. The Critical Impact on the operation of the

interconnection is based on cascading analysis and will be determined if, post CIP-014 disturbance, the system effects result in uncontrolled load interruption and loss of generation of more than 1,000 MW based on the steady state/post-transient and cascading analysis results. As the system configuration changes future studies could determine that Comstock Meadows is a Critical Impact substation. The next CIP-014 studies are scheduled to be completed during 2025.

A: The costs for the block wall addition are not included in either Churchill-Comstock Meadows 345 kV line #1 or Line #2 projects because a block wall is not required.

B: Neither Churchill-Comstock Meadows line (Line #1 or Line #2) triggers the need for the block wall addition.

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO: 24-05041 **REQUEST DATE:** 09-26-2024
REQUEST NO: Staff 395 **KEYWORD:** staff 354 comstock lantern
345 kV; block wall addition
comstock substation
REQUESTER: Sinclair **RESPONDER:** Maxfield, Layne (NV
Energy)

REQUEST:

Reference: Staff 354

Question: Would a 345 kV line from Comstock to Lantern substation trigger the need for a block wall addition at Comstock Substation?

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

No, the Lantern - Comstock Meadows 345 kV line will not drive the requirement for a block wall. However, a wall will be required when the Ft Churchill - Comstock Meadows 345 kV line #2 is constructed.

NV Energy

RESPONSE TO INFORMATION REQUEST

DOCKET NO:	24-05041	REQUEST DATE:	09-04-2024
REQUEST NO:	Staff 350	KEYWORD:	LCMPE CTT model; LTAC fully bundled BTGR
REQUESTER:	Danise	RESPONDER:	Will, Hank (NV Energy)

REQUEST:

Reference: LCMPE Model

Question: During a meeting held on Thursday, August 29, 2024, to discuss the general LCMPE/CTT models, NV Energy stated that the reason why the LTAC is used instead of the charging the LCMPE/CTT customer the fully bundled BTGR rate during grid hours is because NV Energy's billing system does not have the ability to do so. Please confirm that statement was made to Staff during the meeting.

RESPONSE CONFIDENTIAL (yes or no): No

TOTAL NUMBER OF ATTACHMENTS: None

RESPONSE:

While that comment was made in the meeting, it was more intended to reflect the complexity of having individual tariffs and rates for each ESA customer and the required specialized billing. The intention behind developing tariffs is to create a homogenous group of customers that can be treated similarly in how they receive service from the Companies. Specifically, for the LCMPE, the ESA allows the Companies to develop a customer-specific rate component that then gets added to the tariff rates. Please see the response to Staff DR 347 in this docket for further discussion.

AFFIRMATION

Pursuant to the requirements of NRS 53.045 and NAC 703.710, ADAM E. DANISE, states that he 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 his knowledge and belief; and that if asked the questions appearing therein, his answers thereto would, under oath, be the same.

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

Date: 10/15/2024

Adam E. Danise
ADAM E. DANISE