Joint Interim Standing Committee on Growth and Infrastructure

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Company Overview

- Service area covers nearly 46,000 square miles throughout Nevada and about 90 percent of the state's population

- We serve more than 1.5 million customers and a typical state tourist population of more than 54 million annually

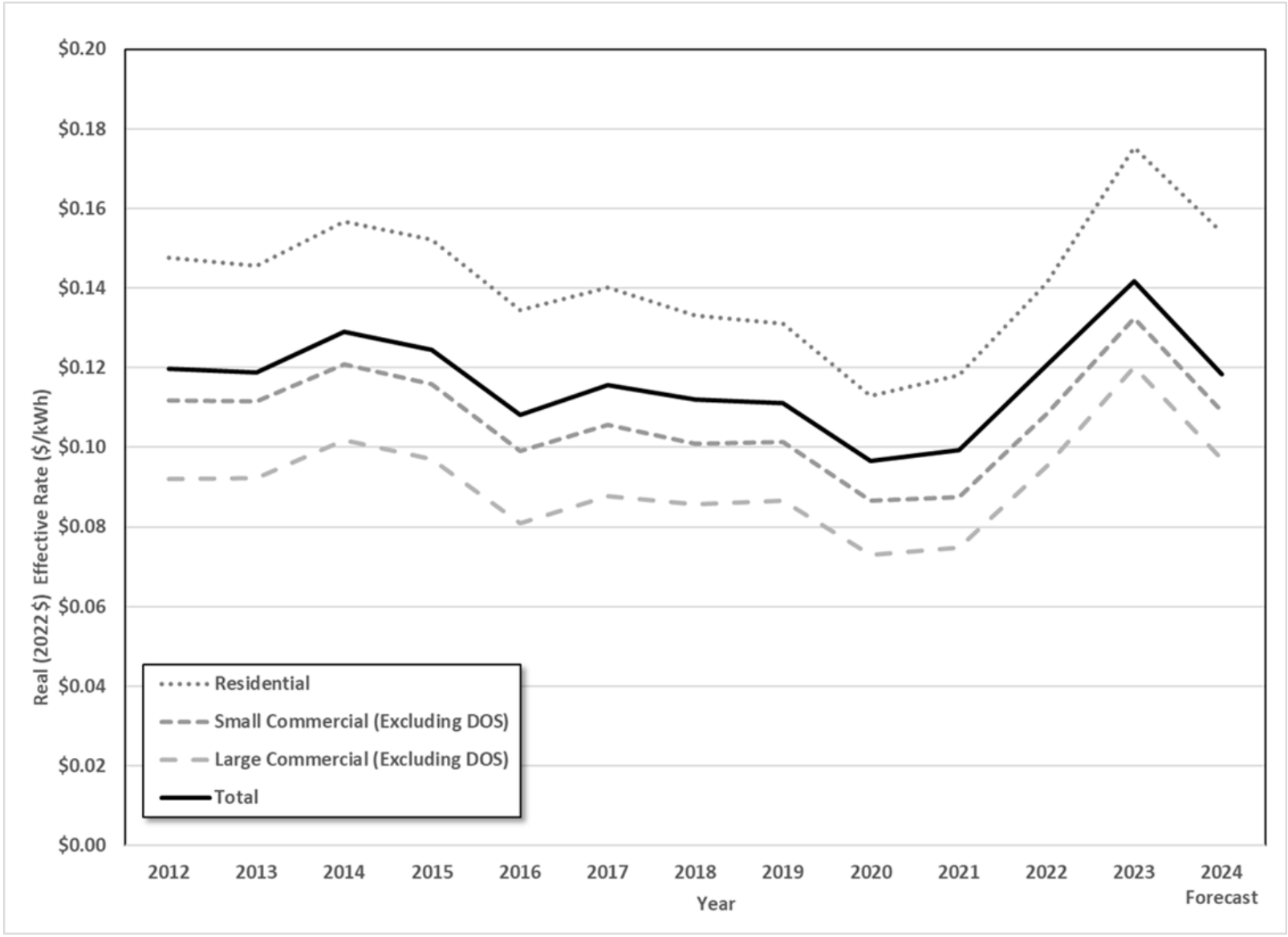
- 2,485 employees statewide
  - Average tenure is 14 years
  - Half of our workforce represented by the IBEW
    - Local 396 in southern Nevada
    - Local 1245 in northern Nevada
  - Total Payroll in 2022: $322 million

- Total Taxes Paid in 2022: $267.6 million

Renewable Energy Profile

- Our company has long understood the benefits of renewable energy and signed its first geothermal contract in 1987 – a decade before our state's renewable portfolio standard (RPS) was established
- In 2022, NV Energy served customers with 36.7% renewable energy, surpassing the 29% requirement for our latest calendar year
- We are well on our way to meeting Nevada's renewable portfolio standard requirement of 50% by 2030 and its net zero carbon reduction goal by 2050
- Our current portfolio consists of 57 large-scale geothermal, solar, solar plus storage, hydro, wind, biomass both in service and under development

NV Energy (South) Effective Rates



Rate Influences

- Total effective rate includes general operations and investments, fuel and purchased power costs, in addition to public program costs
- NV Energy (North) rates followed a similar history as NV Energy (South), with base rates for general operation and investments were held flat or decline for over a decade
- In 2020, we provided an unprecedented $120 million general rate decrease in Southern Nevada
- Fuel rates varied during the same period but began increasing in early 2022 peaking in the second quarter of 2023
- In cooperation with Staff and BCP, implemented a decrease to fuel rate in July 2023 requiring a deviation from regulations that would have resulted in an increase
- Forecasting rates in 2024 to return closer to 2022 levels, which were below the national average, even including the recent base rate increases approved by the Commission at both SPPC in 2023 and NPC in 2024

NV Energy Loads

- NV Energy saw near record loads in July 2023:
  - Load peaked at 8,135 megawatts on July 21 which was the Company's sixth highest peak load on record
  - Also experienced the seventh, eighth, and 10th highest peak load days during the July heat wave

DATE	MAX (MW)
7/9/2021	8,384
7/10/2021	8,336
7/12/2021	8,336
7/11/2021	8,217
7/8/2021	8,164
7/7/2021	8,158
7/21/2023	8,135
7/16/2023	8,089
7/20/2023	8,000
7/6/2021	7,986
7/22/2023	7,964

- NV Energy currently depends on the Western energy markets to supply its peak summer needs – up to 2,500-3,000 megawatts for peak hours in July
- These record loads, and the expectation of rapid growth going forward, highlight the need for additional energy supply resources

Advancing Sustainability and Planning for a Growing Nevada

- Upcoming triennial Integrated Resource Plan will support a growing Nevada
  - The plan will be filed by June 1, 2024

- Key components:
  - New higher load forecast to address residential and commercial growth; electrification; and data center load growth
  - Increasing RPS requirement
  - Diverse resource expansion plan primarily focused on renewable projects (both in Nevada and out of state) and reducing the open position
  - Transmission expansion (Greenlink and regional transmission projects)

Nevada Senate Bill 448 (2021)
Regional Transmission Organization Requirement

- **Transmission providers in Nevada must join a Regional Transmission Operator (RTO) by or before January 1, 2030**
  - Defines RTO as an entity established to coordinate and efficiently manage the dispatch and transmission of electricity among public utilities on a multistate or regional basis:
    - Approved by FERC
    - Separates control of transmission facilities from control of generation facilities
    - Implements policies/procedures to minimize pancaked transmission rates
    - Improves service reliability within Nevada
    - Achieves the objectives of an open and competitive wholesale electric generation marketplace, elimination of barriers to market entry and preclusion of control of bottleneck electric transmission facilities
    - Operates to substantially increase economical supply options for customers
    - Structure of governance or control that is independent of the users of the transmission facilities
    - Policies promote positive performance to satisfy electricity requirements of customers;
    - Inclusive and open stakeholder process
    - Promotes and assists new economic development in Nevada; and
    - Capable of maintaining real-time reliability of the transmission system, ensuring comparable and nondiscriminatory access and necessary service, minimizing system congestion and further addressing real or potential transmission constraints

Nevada Senate Bill 448 (2021)
RTO Requirement may be Waived or Delayed

- Requirement can be waived or delayed by the Public Utilities Commission of Nevada (PUCN)
  - Application for waiver or delay is due by January 1, 2027
  - Transmission provider must demonstrate:
    - Unable to find viable RTO despite reasonable efforts to comply, or
    - Joining an RTO is not in the best interest of the transmission provider and its customers
  - PUCN will grant request for waiver or delay if it is in the public interest

Western Resource Adequacy Program ("WRAP")

- A voluntary Resource Adequacy program that models and plans for Resource Adequacy at a regional level
  - Northwest and Southwest remain separate

- The program includes a planning component and an operational component
  - Planning component: A Forward Showing to cover load + a Planning Reserve Margin (PRM) determined for each month
  - Operational Component: A program that matches participants that have excess supply and those that are deficit to share during scarcity events

- The Planning Reserve Margin currently ranges between 12-22% varying monthly for 2023 -2024 and between 15-32% for 2026-2027

- The WRAP Program is in a transitional phase as participants sign up to join as a binding participant by selecting which season to become binding
  - (Summer 2025 – Winter 2027- 2028)

Day Ahead Energy Market Development

- Participation in a day-ahead market could allow for:
  - Additional fuel and purchase power cost savings
  - More efficient and diverse renewables integration
- Being a Participant in a day-ahead market is not equivalent to becoming a full member of CAISO or SPP RTO. NV Energy would retain the following functions:
  - Transmission control, planning and cost allocation remains with NV Energy
  - Resource Adequacy and Resource Planning will continue to remain with member utilities and their respective regulating authorities
- EDAM
  - The EDAM would extend the CAISO's day-ahead market to WEIM Entities who choose to participate, leveraging existing systems
  - Along with the implementation of EDAM, CAISO will also implement enhancements to its Day Ahead Market at the same time which create new market products and enhance their reliability product
- SPP Markets +
  - SPP is currently developing its Markets + day-ahead market that would provide offerings to its non-RTO members. This will include the development of a real time market in future offerings

Greenlink Nevada Transmission Benefits

Greenlink Nevada is a transmission initiative that will make Nevada a leader in the clean energy economy

- **Environmental Benefits**
  - Moves Nevada closer to a future powered by 100% renewable energy
  - Creates a renewable energy highway that allows access to Nevada's resource-rich renewable energy zones that could not previously be developed due to the lack of necessary transmission infrastructure
  - Positions Nevada to diversify its renewable portfolio by creating access to affordable wind and hydro energy across the western United States
  - It is important to note that Greenlink does not provide resources. It enables resources to be connected and delivered reliably. NV Energy would seek approval from the Commission to own and purchase resources
- **Economic Impact**
  - Generates $690 million in economic activity
  - Creates nearly 4,000 good-paying jobs
  - Allows NV Energy to meet future energy demands, allowing for economic growth and job stability
  - Promotes economic diversification by making Nevada a smart investment for businesses interested in relocating to States that offer affordable clean energy
  - Supports underserved communities by enabling job creation in rural and hard-to-reach communities
- **System Reliability**
  - Improves system reliability and ability to transfer electricity within Nevada and to other states
  - Provides a second transmission path between northern and southern Nevada

Greenlink Nevada Transmission Status

Milestone	Status	
	Greenlink West	Greenlink North
Pre-planning/data gathering	Complete	Complete
Engineering design	30% to 60%	10% to 30%
Series capacitors, circuit breakers, switches, control cable, transformers, reactors	Purchase order issued	Purchase order issued
Transmission line construction, conductor	Contract negotiations	Contract negotiations
Substation construction	Technical evaluation	Technical evaluation
Telecommunications construction, poles	Request for proposals	Request for proposals
BLM Notice of Intent	Complete	Complete
BLM Draft Environmental Impact Statement	Complete	December 2023
BLM Final Environmental Impact Statement	March 2024	June 2024
BLM Record of Decision	June 2024	September 2024
BLM Notice to Proceed	December 2024	February 2025
In-Service	May 2027	December 2028

Project (Includes contingency and AFUDC)	Length	Voltage	In-Service
Greenlink West (Fort Churchill substation to Northwest substation)	326 miles	525 kV	2027
Greenlink West (Harry Allen substation to Northwest substation)	33 miles	525 kV	2028
Common Ties	81 miles	345 kV	2027
Greenlink North	234 miles	525 kV	2028

Community Based Solar Resources

Mojave High School (Clark County School District)

- Completed March 9, 2022
- Carport facility that contains approximately 1,000 solar panels
- 350-kilowatt capacity

Freedom Park (City of Las Vegas)

- Completed January 10, 2024
- Carport facility with approximately 1,500 solar panels
- 480-kilowatt capacity

Moana Springs Center (City of Reno)

- Completed December 31, 2023
- Community aquatics and fitness center with carport solar panels
- 409-kilowatt capacity

Projects built with a worksite agreement with IBEW Local 357 and 396. Construction workers certified by the State of Nevada's Department of Employment, Training and Rehabilitation program were also employed for the project.

Expanded Solar Access Program

*Preliminary pending Legal/Regulatory review per annual filing due March 2024

	2022	2023	2024*
Low-Income Eligible Customer A natural person or household who is a fully bundled residential customer of a utility and has an income of not more than 80% of the Area Median Income based on the guidelines published by the United States Department of Housing and Urban Development. This is the only category that is guaranteed a lower rate.	**NPC** Total Applicants: 1,674 **ESAP Customers: 1,175** **Total MWhs: 16,215** **SPPC** Total Applicants: 423 **ESAP Customers: 284** **Total MWh: 2,125**	**NPC** Total Applicants: 4,188 **ESAP Customers: 3,329** **Total MWhs: 40,118** **SPPC** Total Applicants: 924 **ESAP Customers: 734** **Total MWh: 6,121**	**NPC** Total Applicants: 5,573 **ESAP Customers: 4,678** **Total MWhs: 53,336 (60,000 MWh)** **SPPC** Total Applicants: 1,042 **ESAP Customers: 894** **Total MWh: 6,987 (40,000 MWh)**
Disadvantaged Business or Non-Profit Organization A business for which 50% or more of the owners are women, veterans, members of a racial or ethnic minority group or otherwise part of a traditionally underrepresented group and none of the owners has a net worth of more than $250,000.	**NPC** Total Applicants: 45 **ESAP Customers: 32** **Total MWhs: 388** **SPPC** Total Applicants: 33 **ESAP Customers: 16** **Total MWh: 188**	**NPC** Total Applicants: 165 **ESAP Customers: 93** **Total MWhs: 1,728** **SPPC** Total Applicants: 60 **ESAP Customers: 48** **Total MWh: 861**	**NPC** Total Applicants: 243 **ESAP Customers: 187** **Total MWhs: 4,663 (60,000 MWh)** **SPPC** Total Applicants: 87 **ESAP Customers: 70** **Total MWh: 1,033 (40,000 MWh)**
Eligible Premise Customer A customer who is a fully bundled residential customer of an electric utility who cannot install solar resources on the customer's premises due to physical or ownership constraints. Financial constraints are not applicable considerations for this category.	**NPC** Total Applicants: 317 **ESAP Customers: 229** **Total MWhs: 3,708** **SPPC** Total Applicants: 128 **ESAP Customers: 77** **Total MWh: 636**	**NPC** Total Applicants: 1,324 **ESAP Customers: 1,156** **Total MWhs: 13,041** **SPPC** Total Applicants: 521 **ESAP Customers: 446** **Total MWh: 3,309**	**NPC** Total Applicants: 1,801 **ESAP Customers: 1,655** **Total MWhs: 16,314 (120,000 MWh)** **SPPC** Total Applicants: 560 **ESAP Customers: 524** **Total MWh: 3,890 (80,000 MWh)**

Natural Disaster Protection Plan

Background:

- Senate Bill 329 (2019) requires electric utility to submit a natural disaster protection plan to PUCN

Program Elements:

- **Risk-Based Decision Making**
- **Situational Awareness**
- **Operational Practices**
- **Emergency Response & PSOM**
- **Vegetation Management**
- **Conditional Awareness**
- **System Hardening**

Program Statistics:

- 65 Weather Stations and 11 Wildfire Alert Cameras
- “Fire Season” Operational Practices
- Vegetation Management
  - >2,000 miles and >70,000 unhealthy or hazard trees in these areas have been trimmed/removed
  - >19,000 poles grubbed
  - >32,000 acres fuel breaks
- Inspections, Patrols, Circuit Resiliency, and Corrections
  - >50,000 poles
  - 100% Priority corrections completed
  - 567 pole replacements
- System Hardening
  - 3,400 (Tier 3 Tahoe) Expulsion Fuses Replaced
  - 2.8 miles (Tier 3 Tahoe) Copper Wire Removed
  - 4.5 miles (Southern Nevada non-wildfire)
  - 5.3 miles Covered Conductor Installed

Federal Grants

- Infrastructure Investment and Jobs Act (IIJA)
  - $2.1 million award to NV Energy to advance grid-enhancing technology to increase transmission capacity
  - Team Climate Resilient Gerlach wins $100,000 grant; opportunity to compete for significant federal funding
  - Nevada Lithium Batteries and Other EV Materials Loop designation
  - Working with NDOT on National Electric Vehicle Infrastructure (NEVI) roll out in conjunction with NVE's Interstate Corridor Charging Depot Program
- Grid Resilience and Innovation Partnerships (GRIP) – Round 2
  - Regional concept paper on distributed resources submitted in conjunction with Governor's Office of Energy
- Partnership with Nevada Clean Energy Fund
  - Nevada received $7.7 million EPA award for electric school buses
  - Seeking $250 million under Solar For All low-income program
- Awaiting State guidance on Section 40101(d) Formula Grants to States
- Working with stakeholders to optimize federal funding across demand side management plan, distributed resource plan, and transportation electrification plan for upcoming 2024 Integrated Resource Plan