



# City of Las Vegas City Council Presentation

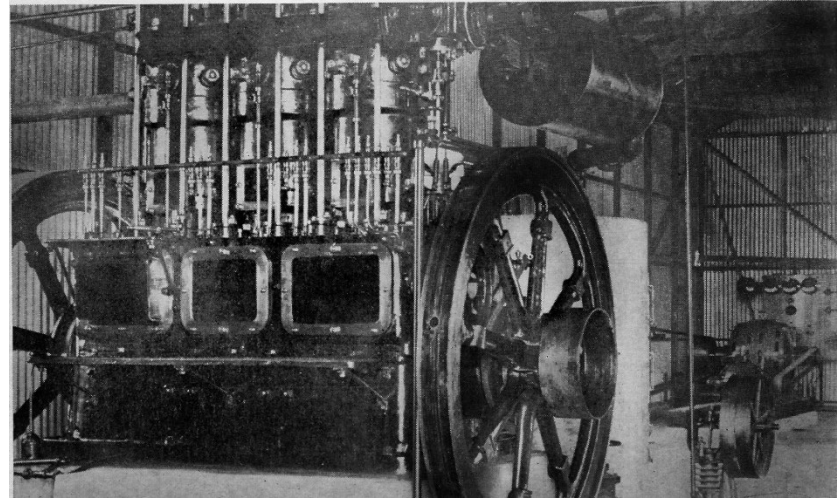
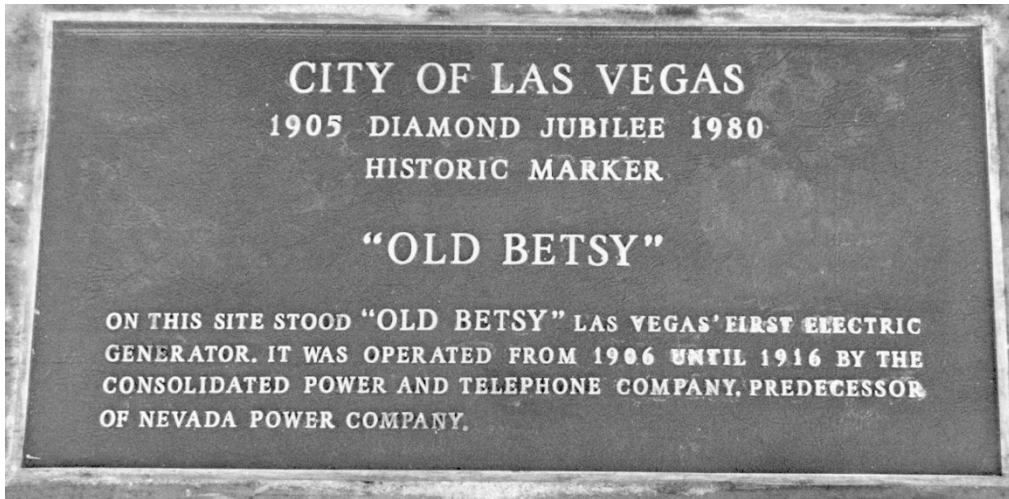
July 20, 2022

Submitted at Meeting by Doug Cannon, NV Energy  
Date: 7/20/2022      Item: 88

# Company Overview



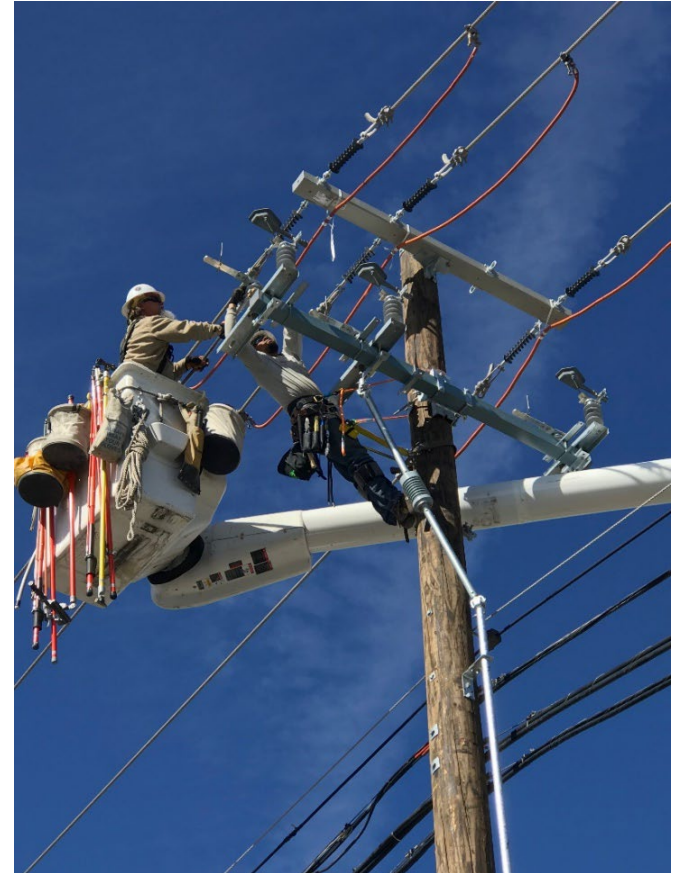
NV Energy has served the citizens of southern Nevada since 1905



# Company Overview



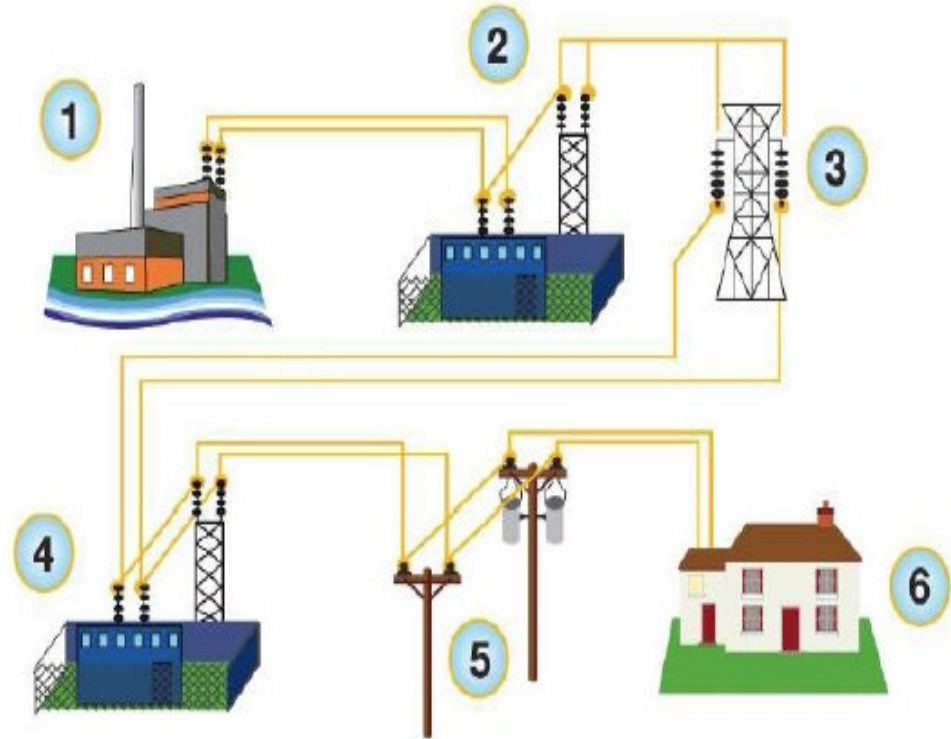
- Service area covers nearly 46,000 square miles throughout Nevada and about 90 percent of the state's population
- We serve more than 1.5 million customers and a typical state tourist population of more than 56 million annually
- 2,319 employees statewide
  - Average tenure is 14 years
  - International Brotherhood of Electrical Workers
    - Local 396 in southern Nevada
    - Local 1245 in northern Nevada
  - Total Payroll in 2021: \$308 million
- Total Paid in Taxes in 2021: \$228 million
  - Includes **\$23 million in City of Las Vegas franchise fees**



# The Power Grid



1. Electricity is generated and leaves the power plant
2. Generated voltage is increased at a “step-up” substation
3. The energy travels along a transmission line to the area where power is needed
4. Once there, the voltage is decreased, or “stepped down,” at another substation
5. A distribution line carries the electricity
6. Electricity is delivered to the home or business





# Undergrounding Management Plan



- The Undergrounding Management Plan (UMP) was created to address requests by local governments for NV Energy to underground certain existing overhead distribution facilities
- NV Energy and local governments share the incremental costs associated with undergrounding the overhead line
  - To date, NV Energy has allocated almost \$1.6 million towards UMP projects on Shadow Lane and Pinto Lane
- NV Energy meets with each local government entity to discuss and select undergrounding projects for the UMP three-year funding period
- NV Energy is working to extend the current plan for another three years 2023 – 2025.

# Integrated Resource Planning



- NV Energy works far in advance to anticipate and plan for the changing energy needs of our customers
- An integrated resource plan (IRP) is the roadmap that details how we will serve our customers over the next 10, 20 and 30 years in a reliable and cost-effective manner
- NV Energy updates and files the IRP with the Public Utilities Commission of Nevada (PUCN) every three years



# Summer Readiness



NV Energy is prepared to meet the energy needs of its customers, even on the hottest summer day with safe, reliable power

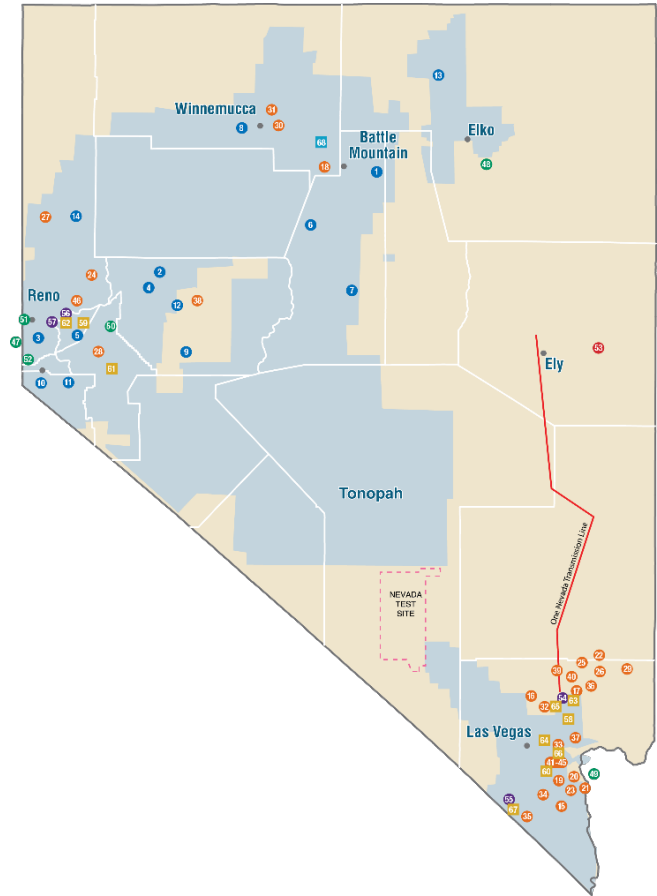
- Maintain our generating stations, power lines, substations and other equipment year-round
- NV Energy crews are available to respond to outages 24/7
- Execute on a multi-part energy strategy all under a plan approved by the PUCN



# Summer Readiness

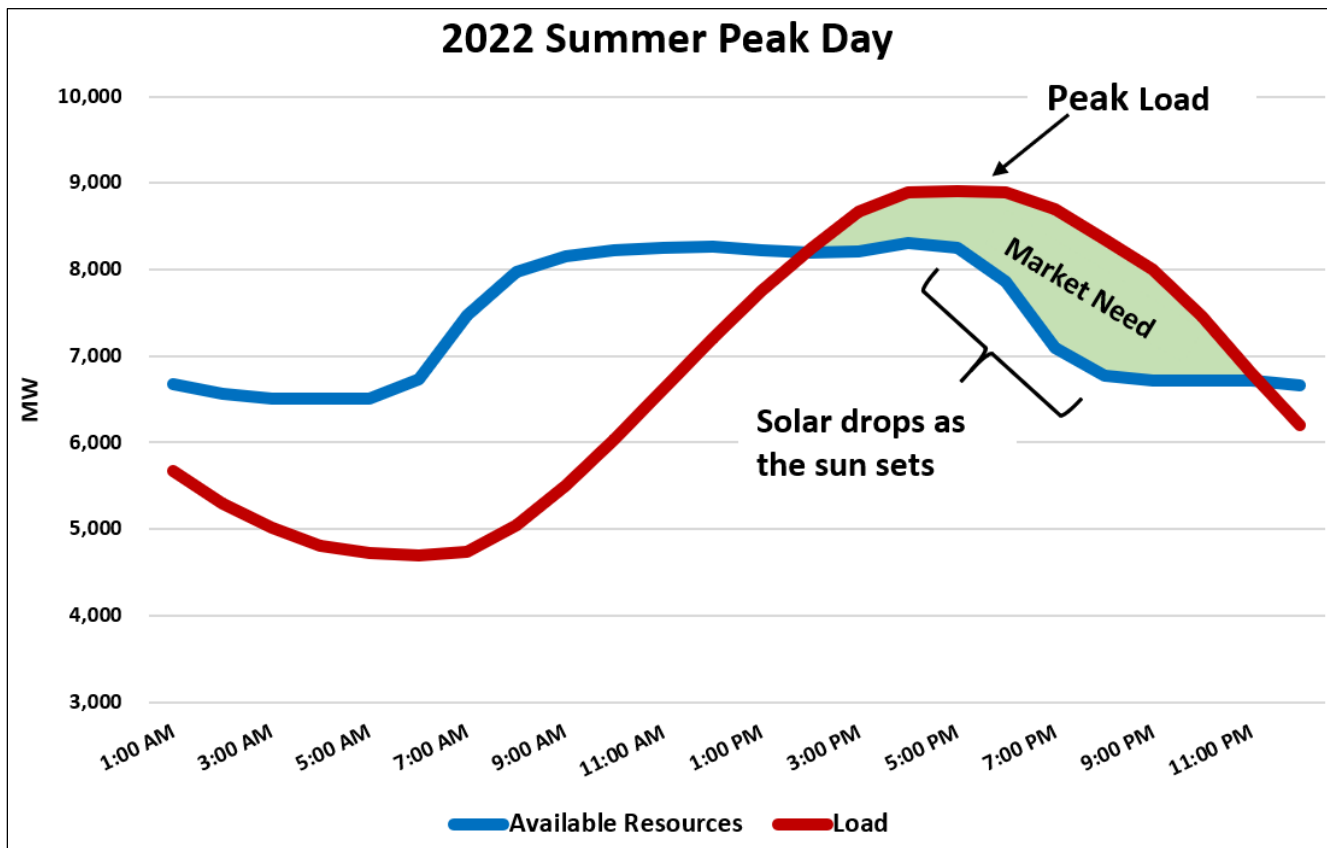


- Supply clean, safe, reliable energy from our owned and contracted generation
  - 5,978 megawatts of owned generation (primarily natural gas)
  - 57 large-scale geothermal, solar, solar plus storage, hydro, wind, biomass and supported rooftop solar projects both in service and under development.
- Procure power from the open energy market to meet summer peak
- Continue to build more generation to reduce market reliance





# Summer Energy Use vs. Generation



# Risks to Resource Availability



## Market purchases face risks that are beyond NV Energy's control

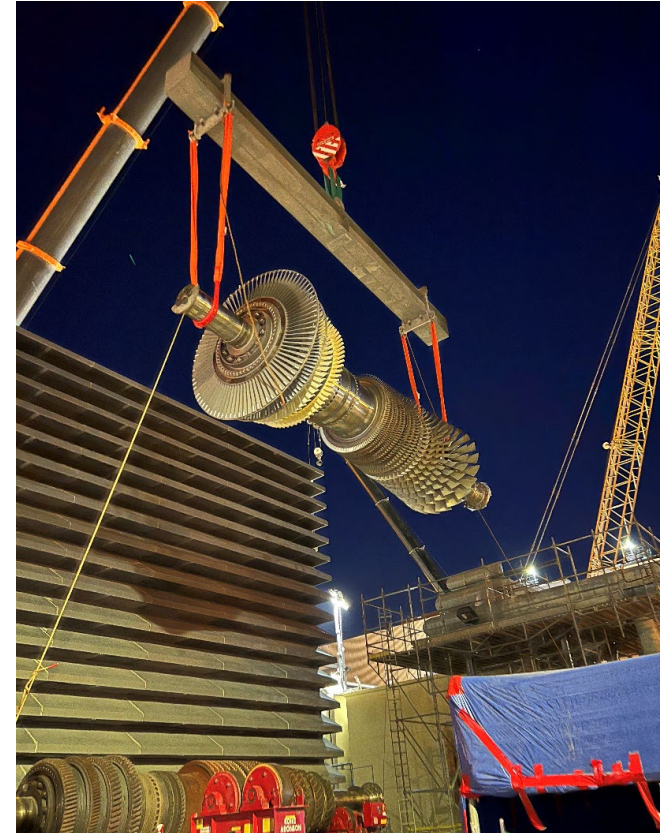
- Impacts of Climate Change
  - Wildfires and other extreme weather events can force out of state transmission lines to be taken out of service
  - Record energy loads across the western United States competing for limited resources
  - Reduced hydroelectric output west wide
- Power plants sourcing the energy can trip offline and the counterparty may be unable to supply the power or replace it from the market
- California rule changes impacting transmission



# NV Energy Actions



- Diversified our out-of-state market purchases to make them less susceptible to regional heat and wildfire impacts
- Have acquired additional power to have on hand should a planned resource become unavailable
- Added generation capacity to our system.
  - Natural gas power plant upgrades, which allow them to provide more energy
  - New solar and battery storage projects that recently have become operational
  - Enough energy to serve 174,000 Nevada homes all at once



# Energy Imbalance Market



- Participate in the Western Energy Imbalance Market (EIM)
- EIM footprint continues to grow
- Having access to this supply brings financial and reliability benefits and we continue to develop and evolve strategies to maximize our participation
- NV Energy customers have received \$165.82 million in energy cost savings since 2014 through EIM participation



Map boundaries are approximate and for illustrative purposes only.

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# Grid Modernization



- We recently received PUCN approval to add 25 megawatts of Nevada-based geothermal energy and build a new 220-megawatt battery system on the site of the retired coal-fired Reid Gardner Generating Station
- Investing in new energy management technologies
- Developing the Greenlink Nevada transmission initiative
  - Unlock more renewable energy
  - Improve reliability
  - Increase access to energy markets



# Sustainable Customer Programs



- **NV GreenEnergy Rider**
- **Expanded Solar Access Program (ESAP)**
  - Community Based Solar Resource
- **Demand Side Management**
  - Education
  - Energy Efficiency
  - Demand Response
- **Renewable Energy Programs**
  - Low-Income Solar Energy Program (LISEP)
  - Energy Storage
  - Rooftop Solar
- **Transportation Electrification**
  - Economic Recovery Transportation Electrification Plan (ERTEP)
  - Electric Vehicle Infrastructure Demonstration Program
  - Electric Vehicle Time of Use Rate

## Economic Recovery Transportation Electrification Plan

Prioritizing low-income and historically underserved communities

Senate Bill 448 defined historically underserved communities in statute



# Workforce Development



## Economic Recovery Transportation Electrification Plan

- Partnering with Southern Nevada and Northern Nevada Joint Apprenticeship Training Centers to ensure reliable and safe installation and maintenance of new electric vehicle (EV) infrastructure
- Nevada electrical training centers **offer paid on-the-job apprenticeship programs** to help youth successfully transition into a well-paying career
- NV Energy's investment will **remove barriers for historically underserved communities** to participate in training programs
- Planned EV infrastructure construction is projected **to require 300,000+ labor hours**



ELECTRICAL JATC  
OF SOUTHERN NEVADA



# Customer Actions



- NV Energy offers a variety of options for customers to control their energy use and budget.
- Not only do these actions help save energy and money, but they also reduce the overall energy load and amount of power NV Energy needs to supply.
- These include participating in **PowerShift by NV Energy** products and services:

**Smart Thermostat** - receive a free programmable thermostat that can be adjusted from any mobile device





# Customer Actions



- **Home Energy Assessment**  
professional review of home to provide customized ways to reduce energy use
- **Air Conditioner Replacement**  
instant discounts off an energy efficient AC unit
- **Pool Pump Discounts**  
instant discounts off an energy efficient variable speed pool pump



[nvenergy.com/powershift](https://nvenergy.com/powershift)

# Customer Actions



## PowerShift by NV Energy options for Income-Qualified Customers

- **Qualified Appliance Replacement**  
Replaces an old refrigerator and electric dryer with new energy efficient models
- **Air Conditioner Replacement**  
Greater instant discounts off an energy efficient AC unit
- **Free AC Tune Up**  
Improves AC efficiency



[nvenergy.com/powershift](https://nvenergy.com/powershift)

# Customer Actions



- Keep your thermostat set at 78 degrees when you are home, and several degrees higher at night or when you are not home
- Close blinds and drapes during the day to keep the heat out
- Use your dishwasher, clothes washer and dryer before 5 pm or after 9 pm. These appliances add heat to your home and make your AC work harder



# Customer Actions



- Only run your pool pump eight to 12 hours a day and schedule it to run at night
- If your AC unit is on the ground, keep the area around it clean and free of obstructions to maintain air flow to help it work more efficiently
- Electric vehicle owners can take part in the EV Time-of-Use Rate, which provides a discounted rate to charge their vehicle during the utility's off-peak hours between 10 p.m. and 8 a.m.



# Outage Preparation



- Build or restock an emergency kit with flashlights, fresh batteries, first-aid supplies, food and bottled water – enough for everyone in your household
- Learn how to manually open your garage door
- Keep hard copies of emergency numbers and other important contacts
- Identify backup charging methods for phones, including a cell phone charger that can be used in the car



# Outage Preparation



- Update your cell phone number and sign up for outage alerts via text at [nvenergy.com/myaccount](https://nvenergy.com/myaccount) to ensure you receive updated outage information
- During an outage event, keep your refrigerator and freezer closed to ensure food stays as fresh as possible
- Customers who have questions can call NV Energy at 702-402-5555. Information is also available on [nvenergy.com/outage](https://nvenergy.com/outage)



 **NV**Energy