

# Nellis Solar Array II Generating Station



**Location:** Nellis Air Force Base – North Las Vegas, Nevada

**Peak Generating Capacity:** 15.0 megawatts  
(alternating current)

**Plant Description:** The Nellis Solar Array II Generating Station is NV Energy's first wholly-owned utility-scale solar project. It came on line late 2015 and helps to meet the energy requirements of the Nellis Air Force Base.

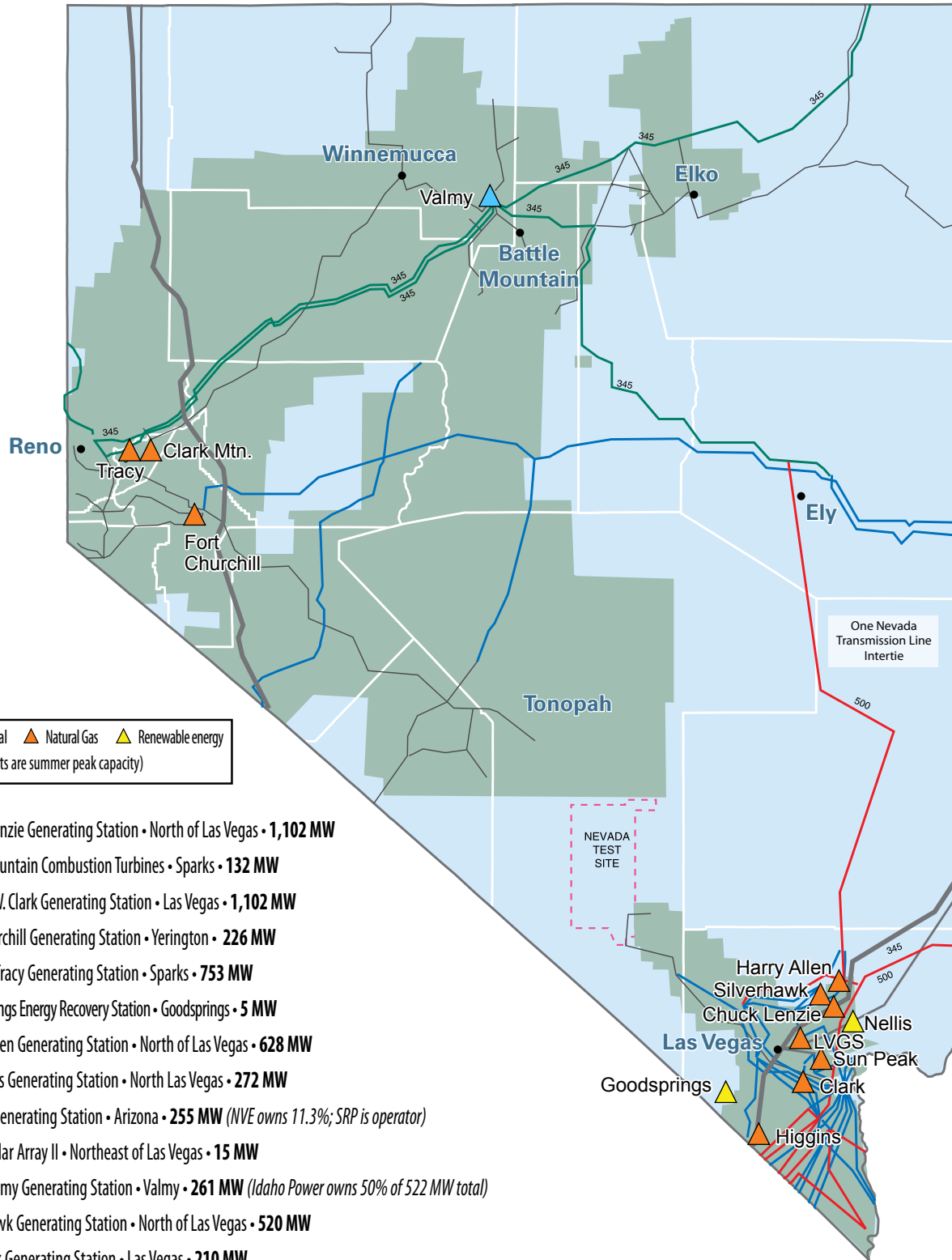
SunPower provided the technology and constructed the solar photovoltaic power plant. The company used 43,200 highly efficient photovoltaic panels, which absorb sunlight and convert it directly into electricity. The SunPower® Oasis® Power Plant technology increases energy production by using a GPS-controlled single-axis tracking system to follow the movement of the sun throughout the day.

**Employment:** Approximately 150 employees were involved in the construction of the solar array, as well as the design and construction of a new substation adjacent to the solar array and new connecting distribution and transmission lines. No permanent employees work at the solar plant. Support will be provided by power plant personnel located at the Las Vegas Generating Station.

## INTERESTING FEATURES:

- When added to the existing 13.2-megawatt Nellis Solar Star array that was built in 2007, this power plant enables Nellis Air Force Base to be energy independent during sunny days.
- The solar array provided a beneficial use of a previously closed Nellis Air Force Base landfill.
- An adjacent substation built by NV Energy and new connecting lines to the company's transmission and distribution systems provide additional electricity reliability for the Air Force base.
- Specially designed panel-cleaning robots are used to clean the more than 43,000 panels. These robots use 75 percent less water, compared to manual cleaning methods. Two crews managing eight robots can clean the entire array in less than two full days.

# Generating Resources



Key: Coal Natural Gas Renewable energy  
(All megawatts are summer peak capacity)

- Chuck Lenzie Generating Station • North of Las Vegas • **1,102 MW**
- Clark Mountain Combustion Turbines • Sparks • **132 MW**
- Edward W. Clark Generating Station • Las Vegas • **1,102 MW**
- Fort Churchill Generating Station • Yerington • **226 MW**
- Frank A. Tracy Generating Station • Sparks • **753 MW**
- Goodsprings Energy Recovery Station • Goodsprings • **5 MW**
- Harry Allen Generating Station • North of Las Vegas • **628 MW**
- Las Vegas Generating Station • North Las Vegas • **272 MW**
- Navajo Generating Station • Arizona • **255 MW** (NVE owns 11.3%; SRP is operator)
- Nellis Solar Array II • Northeast of Las Vegas • **15 MW**
- North Valmy Generating Station • Valmy • **261 MW** (Idaho Power owns 50% of 522 MW total)
- Silverhawk Generating Station • North of Las Vegas • **520 MW**
- Sun Peak Generating Station • Las Vegas • **210 MW**
- Walter M. Higgins Generating Station • Stateline • **530 MW**

To Navajo  
(east of Page, AZ)