

## WATER TO THE DESERT THANKS TO SOLAR POWER



SOUTHERN NEVADA  
WATER AUTHORITY

**Customer:**

**Southern Nevada  
Water Authority**

(SNWA) manages Las Vegas Valley's water resources and develops solutions to ensure adequate future water supplies for the region. Since 2002, its **River Mountains Water Treatment Facility** has treated 300 million gallons of water daily, providing reliability and additional capacity to Southern Nevada's municipal water treatment and distribution systems.

**Location:**

River Mountains Water  
Treatment Facility  
1299 Burkholder Blvd  
Henderson, NV 89015

In the desert there are two certainties - a scarcity of water and an abundance of sunshine. So when Las Vegas needed more treated water, the Southern Nevada Water Authority (SNWA) turned to the sun. Since commissioning in 2009, solar power generated by Amonix concentrated photovoltaic (CPV) systems has partially offset the electricity required to operate the SNWA River Mountains Water Treatment Facility.

Charged with meeting the region's growing demand for water while minimally impacting the sensitive desert environment at its Henderson facility, SNWA partnered with Amonix Inc., the world's leading manufacturer of utility-scale concentrated photovoltaic (CPV) solar power generators, to install a solar power plant capable of producing 240 kW of clean, renewable power.

Looming over the desert near Burkholder Blvd, each of the power plant's six Amonix CPV systems is more than 77' wide and 50' tall. These MegaModules® house Fresnel lenses that concentrate sunlight 500 times onto high-efficiency multi-junction solar cells, and utilize proprietary hydraulic drive dual axis tracking to follow the sun's daily trajectory. Multi-junction cells are the solar industry's highest efficiency cells; by incorporating them, Amonix CPV systems are able to deliver 25% (AC, post-inverter) system efficiency, the highest of any commercial solar system.



**240 kW Amonix CPV Installation at SNWA**

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For SNWA, though, Amonix CPV technology's low environmental impact was as important an evaluation criteria as its power-generating capacity. The Amonix solar power generators at River Mountains Water Treatment Facility require just five acres of land per MW of installed capacity, less than half the land required by any other solar technology. Amonix systems are pedestal-mounted, which minimizes the need for major excavation, and their high ground clearance allows native vegetation to flourish beneath them. The dual axis tracking keeps the systems in constant motion so there is no permanent land shading, a critical requirement in preserving the local endangered desert tortoises' habitat at the site. Finally, the Amonix CPV systems do not require water for operation, a key factor for SNWA and a significant benefit in Nevada's dry climate.

According to Vahan Garboushian, founder and CTO of Amonix, "We've developed our CPV technology to have as low an environmental impact as possible. We are particularly excited to work with the SNWA to generate clean solar energy at the River Mountains Water Treatment Facility and to advance renewable energy initiatives that benefit its customers, as well as the environment."

Viewed from Interstate I-515 S against the backdrop of the southern Nevada desert foothills that SNWA works so hard to preserve, the Amonix CPV installation at River Mountains Water Treatment Facility makes a powerful visible statement about SNWA's commitment to providing clean water by using clean energy.

### ***About Amonix***

Amonix designs and manufactures concentrated photovoltaic (CPV) solar power systems that require less water, use land more efficiently, and produce more energy per acre than any other solar technology. Designed for utility-scale installations starting at two megawatts, Amonix systems are deployed quickly and achieve optimal performance and reliability while delivering an industry-leading levelized cost of energy (LCOE). With the industry's longest track record of real-world CPV deployments, Amonix is proven and bankable – the best choice for solar power systems in sunny and dry climates.

Founded in 1989, Amonix is headquartered in Seal Beach, CA, and has design and manufacturing facilities in Torrance, CA and Seal Beach.

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