



# Weed Army Community Hospital

## On-Site Energy Management

### About the Facility:

The Weed Army Community Hospital is located at Fort Irwin, CA and is a state-of-the-art facility developed using evidence-based design for solar energy implementation. In addition, the facility is the world's first carbon-neutral hospital and has achieved LEED® Platinum Certification, the highest qualification rating attainable for energy and resource efficiency in design and construction.

### Scope of Work

Acting as owner representative, SEA's on-site certified energy manager was instrumental in the development of the building's infrastructure. Working with the design team and early in the planning phases, SEA used its energy modeling tools to create nine major energy conservation measures that decreased overall ASHRAE code calculated energy usage by 21.7%. These measures reduced greenhouse gas emissions by 1,403 metric tons per year below the baseline. Additionally, renewable energy systems, including a solar photovoltaic (PV) array and a solar thermal array, take advantage of the site's solar irradiance potential to meet all of the hospital's energy and hot water requirements.

Over \$2M in rebates were secured to help minimize the initial costs. SEA led the commissioning of all mechanical and electrical systems to ensure that they performed as designed. In 2012, the design team received an Honor Award for Conceptual Design from the Chief of Engineers Awards of Excellence Program.

### Results

- 9 ECMs will decrease energy use by 21.7%
- \$392,005 savings by design rebates from local utility
- Reduced combined payback to less than 6 years
- Designed and integrated 2.4 MW solar PV array and solar thermal array
- Greenhouse gas emission reduction by 4,076 metric tons per year below ASHRAE baseline
- LCC analysis - \$2.8 million in cumulative savings
- EUI of 24 KBTu / sq. ft. per year

SEA led the way in helping WEED Army Community Hospital secure LEED® Platinum Certification as the World's First Carbon-Neutral Hospital.

2M

Secured Rebates /  
Incentives

307  
k

Savings annually

1MW

Solar Power  
Generated

