

## Where Does Burbank's Power Come From?

*Burbank Water and Power gets electricity from a number of sources, using a wide variety of technologies and fuels, located in California, Arizona, Nevada, Washington, Wyoming, and Utah.*

*Here is one.....*



Copper Mountain solar, located near Boulder City, Nevada, is a brand new 250 megawatts (MW) solar photovoltaic power plant. Solar photovoltaic, also known as PV, converts sunlight into electricity.

The project comes on-line in phases from late 2014 into 2016. BWP is contracted to purchase 40 MW of energy for 20 years. The contract was secured through Burbank's membership in the Southern California Public Power Authority better known as SCPA.

PV technology has seen significant improvements: efficiency has gone up and costs have gone down. PV is renewable, has no fuel costs, and generates electricity during the day when the need for electricity is greater but not at night when needs are reduced.

PV can also be a challenge for reliability. PV depends on direct sunlight to

generate electricity so a passing cloud can cause sudden dips and spikes of electricity.

PV tends to "switch on" suddenly when the sun rises and "switch off" just as suddenly when the sun sets. Maintaining a close match between PV's rapidly changing generation and BWP's more constant load requires fast-responding power units to maintain reliability. Customer's ability to reduce their electricity consumption in response to their utility's needs and energy storage will have important roles to play.

Copper Mountain solar helps BWP comply with California's Renewable Energy Standards which mandate that California utilities procure a significant portion of their energy from renewable sources. BWP currently receives about 25% of its energy from renewable sources and Copper Mountain will take BWP to 33% well in advance of the 2020 deadline.