



Harry Allen Generating Station



Plant Description: The Harry Allen Generating Station is a clean-burning natural gas-fueled power plant that is located in Southern Nevada, north of Las Vegas. It was originally built as a “simple cycle” plant to operate mostly during the hottest time of the year when customer demand was the highest. Later a combined-cycle facility was added to expand its ability to serve customers and to help NV Energy become more energy independent in Nevada.

The original 72-megawatt General Electric 7EA combustion turbine was completed in 1995. The second similar-sized unit was added in 2006, and it includes a DLN1+ dry low-NOx combustion system.

In 2011, the station added a 484-megawatt combined-cycle system that includes two highly efficient General Electric 7FA+e combustion turbines and a recycled exhaust system to produce steam for a General Electric D11 steam turbine to make additional electricity. The additional generation is expected to be operational in 2011.

Unlike conventional power plants that use substantial amounts of water for cooling, the combined cycle units at the Harry Allen Generating Station use a six-story-high dry

cooling system. Similar to a car radiator, 36 massive fans (36-feet in diameter) will be used to condense the steam back into water to be reused in the plant.

Interesting Features:

- The plant can produce enough electricity to serve approximately 375,000 Nevada households.
- The dry-cooling system enables the combined-cycle plant to make the same amount of electricity with a mere 6% of the water used by conventional water-cooled facilities. And, for the water used, the facility uses a waste water treatment system that recaptures and recycles about 75 percent of the used water.
- NV Energy annually provides approximately \$34 million in tax revenue to Clark County that benefits general county operations, schools, libraries, and other civic activities.



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