Powering up in northern Nevada

One of the few combined-cycle power plants to be constructed in the United States beginning in 2006 is the new 514-megawatt facility for Sierra Pacific Power Company, the principal utility provider for much of northern Nevada and the Lake Tahoe area. To bring the new power plant online by March 2008, Sierra awarded the much sought after engineer-procure-construct contract to CH2M HILL.

Valued at more than $200 million, the contract will involve the fast-track engineering and construction of a new generating station using gas-fired General Electric combustion turbines, a GE steam turbine and two Nooter Eriksen heat recovery steam generators in combined cycle. Combined-cycle systems burn natural gas in a gas turbine coupled to a generator for electricity production. The hot exhaust gases are then used to generate steam for producing additional electricity via a conventional steam turbine generator. Efficiencies of up to 56 percent can be achieved by large, new power generation units.

The project will also feature an air-cooled condenser to save a considerable amount of water in an area with significant water limitations, as well as selective catalytic reduction technology to produce low emissions. Construction will begin in April, with a peak workforce of up to 500 workers.

"This project is one of the few of its kind being built in the U.S. currently and was pursued by the ‘who’s who’ of power plant construction," said CH2M HILL’s Don Zabilansky. “By winning, we continue to elevate CH2M HILL as a recognized power plant engineer/constructor.”

Zabilansky said the keys to winning the project were CH2M HILL’s history on similar projects, including the successful Silverhawk Project in Las Vegas for Pinnacle West Energy. Sierra also chose CH2M HILL based on cost, risk, experience and execution planning factors.

The team will be led by: Les Mathine, project director; Allan White, engineering project manager; and Phil Schoenecke, site construction manager. Overseeing the project will be vice president of operations, Bill Whalen, and Roger Langille, western region manager of projects.

“CH2M HILL is excited about the opportunity to work with Sierra Pacific Power Company in the development of the new power plant to provide needed electricity for its customers,” Mathine said.