

### **3.0 PROJECT OBJECTIVES AND NEED**

Predictions are that California could face significant electricity shortages over the next several years as demand continues to grow (CEC, 2005). For a city such as Victorville, which is centered in one of the fastest growing regions in the state, the potential problem is particularly acute. That is why Victorville decided to undertake development of a 570 MW generating facility.

Additionally, the City of Victorville found itself in complete agreement with the recent emphasis on increasing the renewable energy component of the state's generating mix. Since the High Desert is home to one of the best solar energy resources in North America, it made sense to Victorville that solar energy should be a component of the City's proposed new generating facility to the greatest extent practical.

Finally, Victorville's leadership has been on a mission since the economically devastating closure of George Air Force Base in 1992 – to bring a diverse mix of new businesses and industries to their community to create jobs that will enable the residents of the area to work where they live. The City learned that access to reliable, affordable energy was one of the most important issues to attracting new industries. This fact provided additional incentive for the City to have a new generating facility located within its borders and within its control.

Based on the above factors, Project objectives are summarized as follows:

- Provide an efficient, reliable, and environmentally sound power generating facility to meet future electrical power needs of the rapidly growing City of Victorville and surrounding areas, as well as provide additional generating capacity for the State and region as a whole,
- Locate this facility within the boundaries of the City of Victorville and under City ownership and control, so that the City can increase its level of assurance that the future electrical power needs of residential, commercial, and industrial users in the City can be met, while at the same time supplying power to the regional grid,
- Use solar technology to generate a portion of the Project's power output and thereby support the State of California's goal of increasing the percentage of renewable energy in the State's electricity mix,
- Integrate the solar component of the Project and its combined-cycle component in a way that maximizes the synergies between the two technologies to increase Project efficiency, i.e., feeding steam generated from the solar-thermal component to the HRSG that is part of the "conventional" combined-cycle equipment. This allows the Project to operate with only one steam turbine generator rather than a steam turbine generator for the combined-

cycle component of the Project and a second steam turbine generator for the solar component, and

- Site the facility in a location zoned and planned for industrial use in an industrial area and with ready access both to adequate supplies of non-potable water to meet the Project's process water needs and to a natural gas pipeline that can supply the Project without requiring significant modifications to the regional gas supply system.