Victor Valley College District Sustainability Program
The District leadership made a resource and financial commitment in 2010 to create a comprehensive sustainability program to reduce its dependency on utilities and reduce future expenditures.
Overview

- One Megawatt CPV
- 250 kW solar covered parking at VVC new Lead Gold Fire training/A.J./E.M.T. Facility
- Two new solar covered parking structures -200 kW each
- Campus Lighting Retrofit
- Campus Energy management upgrade
- Boiler replacements
- Sustainable landscaping project
- All new construction required to participate in S.C.E. savings by design
- Plug load occupancy sensor and power management software installation
One Megawatt CPV

- The VVC Power plant is a 1 MW-AC plant occupying 6 acres
- 122 ground mounted CPV arrays
- Produces approximately 2.6 million Kilowatt-hours annually
- Roughly 30% of the college’s energy requirements
One Megawatt CPV

Project cost: $4.663 million
Annual kWh production: 2,421,900
Electricity generated over 25 years: 54,755,952 kWh
Avoided electricity purchase: ($12,043,473)
CSI-performance base incentives: ($3,809,722)
Option R Tariff savings: ($3,762,041)
Total savings over 25 years: ($20,162,796)
Estimated 5 year payback
Public Safety Training Center

- Lead Gold Facility
- 250kWh solar covered parking
- Solar project cost: $1,600,000
- Project cost $31,268,000
Regional Public Safety Training Center
Main Campus Solar Covered Parking

- Solar covered parking
- 200 kWh
- CSI incentives of $244,000
- Eight electric car charging stations
- 42” LCD output display
- Under canopy lighting
- Project cost: 1.8 million
Campus Lighting Retrofit

- Replace all exterior lighting with T-5 fluorescent technology
- Reduce energy consumption by over 50%
- Interior occupancy sensor installation
Energy Management System/Central Plant Tie In/Boiler Replacements

- Installed new Web based E.M.S and completed Retro commissioning for more efficient operation of equipment
- Added additional building load to the Central Plant
- Completed boiler replacements in various buildings on campus
Sustainable Landscaping
Sustainable Landscaping

• The new landscape removes 26,367 sq. ft. of non functional turf which saves money!

• Removing the turf saves 865,634 gallons of water a year. Every 1,000 square feet of turf uses 32,832 gallons of water per year.

• The District received a rebate for turf removal by the local Water District.

• This project will be the first step in a “Strategic Partnership” with the Mojave Water District for improvements to the campus that reduces water usage.

• The new landscape design requires substantially less labor to maintain.

• This project eliminates the use of harmful chemical fertilizer and herbicides required by the existing turf areas.

• Landscape green waste will be reduced as a result of the new landscape design thereby reducing waste to the landfill.
Program Results

• Reduced utility expenditures by $600,000 annually that can be applied to Instruction
• Create Green jobs and educational opportunities for students
• Reduction in Greenhouse gas and other pollutants
• Reduced dependency on the utilities by lowering the overall demand
Thank You