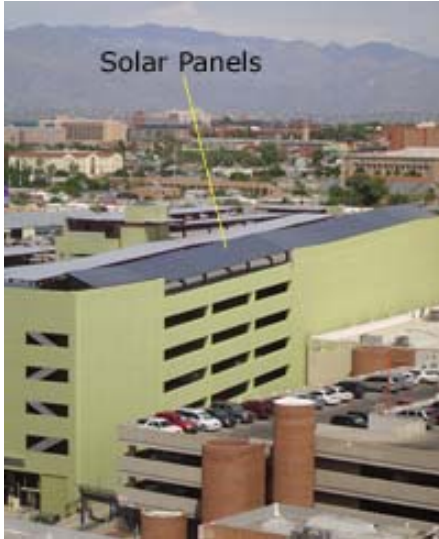




SOLAR CASE STUDY

Pennington Street Garage



PROJECT DESCRIPTION:

- Panels provide shading for 36 parking spaces on top level of city parking garage in downtown Tucson.
- Panels meet most of electrical lighting needs of garage.
- Life cycle costs of electricity estimated at \$.125/kWh.
- Site monitoring at <http://www.tucsonaz.gov/hottopics/citysol ar.html> available to public 24/7.
- Data used by Tucson Electric Power (TEP) for study of cloud cover effects on solar output.
- Technical assistance donated by Tucson Electric Power and New Mexico State University.

TECHNICAL SPECIFICATIONS:

- Operational September 2005.
- 360 Kyocera KC 167G panels generating 60 kW DC, 50 kW AC.
- Panels installed at 20° angle.
- Weather station and data acquisition system installed
- 10 Sunny Boy 6000 48 VDC inverters
- Estimated annual energy production- 95500 kWh, enough to power almost 10 homes
- Annual cost savings approximately \$7640.00
- Greenhouse gas reductions approximately 92 equivalent tons CO₂ annually

FINANCIAL DETAILS:

- Total cost: \$466,000
- TEP donation reduced costs

