



SOLAR CASE STUDY

Thornydale Reclaimed Water Reservoir Phases I-III



PROJECT DESCRIPTION

- On unused concrete roof of reclaimed water reservoir north of Tucson.
- Developed with Trico Electric Power Coop and Arizona Electric Power Coop.
- Three of five planned phases now complete (10/2007).
- Current generating capacity: 74.5 kW.

FINANCIAL DETAILS

- Financing by Tucson Water and Tucson City General Services Department plus solar rebates of \$175,000 from Trico and AEPC.
- Total costs to date \$574,110.

TECHNICAL SPECIFICATIONS

- Phases I and II completed in 2005 and 2006.
- Each phase-72-300 watt Schott panels, generating 21.6 kW DC each.
- Phase III-108-290 watt Schott panels, generating 31.3 kW DC.
- Inverters: Xantrex 20208 and 30208.
- Annual energy production estimated at 119,000 kWh.
- Annual cost savings approximately \$9500.
- Greenhouse gas reductions 114 equivalent tons CO₂ annually.

