

CIP BUDGET EXPENSE DETAIL

DATE OF COUNCIL CONSIDERATION:
CONTACT DEPARTMENT(S):

12/8/11
Austin Energy

SUBJECT: Authorize execution of a construction contract with TEXAS SOLAR POWER COMPANY, Austin, Texas, for the restoration of a solar array at Austin Energy's Decker Creek Power Station in an amount not to exceed \$947,497.80.

CURRENT YEAR IMPACT:

Department:	Austin Energy
Project Name:	Alternate Energy
Fund/Dept/Unit:	3120-1107-7615
Funding Source:	100% Current Revenues

Current Appropriation	32,040,284.00
Unencumbered Balance	11,815,303.05
Amount of This Action	(947,497.80)
Estimated Available	<u>10,867,805.25</u>

ANALYSIS / ADDITIONAL INFORMATION: In 1985, Austin Energy constructed a 300 kW photovoltaic (PV) solar array at its Decker Creek Power Station which was the largest PV system in the nation at the time. The solar modules and tracking system are no longer functional and need to be replaced. This contract will include replacement of solar modules, a new mechanized tracking system on the existing pedestals, and necessary electrical infrastructure upgrades. This project will reuse much of the existing infrastructure, resulting in a relatively low-cost tracking solar power array. This project will provide 300 kW of solar PV which will contribute to the 200 MW goal of solar power generation by 2020.

The solar equipment to be installed at the Decker Creek Power Station meets Austin Energy program requirements. The modules, which are being purchased under a separate contract, are rated at 240 watts each for a total of 300 kW at Standard Test Conditions. Associated inverters that convert Direct Current power to Alternating Current are rated at 96% efficiency. This energy improvement will save an estimated 515,800 kWh per year, enough to provide electricity to 52 average Austin homes for a year and produce an estimated 516 Renewable Energy Credits per year. These savings are equivalent to the planting of 11,254 trees or 563 acres of forest in Austin's parks or the removal of 576,265 vehicle miles or 72 cars from Austin roadways. This project will save 298 tons of Carbon Dioxide (CO₂), 126 pounds of Sulfur Dioxide (SO₂), 634 pounds of Nitrogen Oxide (NOX), and 827 pounds of Carbon Monoxide (CO) from being emitted into the atmosphere.