

REVENUE BONDS: A NEW APPROACH FOR
FINANCING CONSERVATION IN CALIFORNIA
STATE FACILITIES

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ENERGY PROJECTS AT CALIFORNIA STATE FACILITIES

State Energy Use

- State spends over \$300 million annually for natural gas and electricity
- There are over 10,000 State facilities

Energy Projects Developed Since 1973

- Over 800 energy projects have been implemented at State facilities
- Over \$150 million has been allocated from the State Budget
- Over \$85 million of energy projects have been contracted for through private energy service contracts

Bond Program Need

- The Department of General Services estimates that over \$600 million is still needed to finance cost effective State energy projects
- Most of the energy programs implemented to date by the State have been the low cost projects
- Most of the major State facilities are 20 to 50 years old and are in urgent need of utility infrastructure repair/replacement
- There are insufficient funds to fund the energy projects from the State budget

Major Legislative and Administration Support

- 1981 Legislative policy supporting State energy programs
- 1982 Legislature authorizes use of revenue bonds and reinforces the need for energy projects at State facilities
- 1984 Legislature establishes a policy of sharing the savings from energy projects implemented at State facilities; 50% to the facility and 50% to the State budget
- 1986 Governor's 1986/87 Budget highlights the Energy Efficiency Revenue Bond Program and identifies a six year program totaling \$380 million
- 1986 Governor issues and Executive Order requiring all State agencies to reduce their energy use, per unit of governmental service, 25% by 1993

BOND PROGRAM HIGHLIGHTS

Projects submitted for funding:

- Number of Projects: 102 Total: \$106,600,000

Projects were submitted by Department of finance and the following Agencies:

- Department of Mental Health
- Department of Developmental Services
- Department of Corrections
- California Youth Authority
- California State University System
- University of California

Projects range from installing flow restrictors and insulation to complex cogeneration systems, ranging in cost from \$8,000 to \$20,000,000.

Total project funding is approximately 50% for cogeneration projects and 50% for conservation.

PROJECT SELECTION PROCESS

Project Identification

Projects are identified in three ways. The majority of projects are submitted by the various agencies and departments. The Department of Finance identifies energy related projects that were originally submitted for funding through the normal State budget process. Projects are also identified from energy audits and project analysis performed by the Office of Energy Assessments.

Project Engineering Analysis

Licensed professional engineering consultants retained by the Office of Energy Assessments do technical analysis of each project, focusing on the following:

1. Technical feasibility.
2. Technical strength of project configuration.
3. Design and construction cost estimates.
4. Design and construction within three years of bond issuance.
5. Project performance calculations, including energy savings.
6. Historical and future plans for the facility.

Project Financial Analysis

The Office of Energy Assessments performs cash flow analysis for each project. Current utility rates are escalated using the California Energy Commission forecasts. Sensitivity analysis ascertain the effects of possible changes in energy prices or operational changes. The major criteria for project recommendation are:

1. Minimum debt coverage of 110% in the first year and 125% over the bond term.
2. Project payback period within the bond term.
3. Project useful life greater than the bond term.

Agency/Department Review

The technical and financial analysis for each project are reviewed by the appropriate agency and departmental staff in consultation with the Office of Energy Assessments. This review reinforces the technical findings regarding other on-going, related projects at the site as well as planned use changes.

THE BONDS

Maturity:	15 Years
Amortization:	Level Debt Service to Match Energy Service Contract Demand
Reserve Fund:	10% of Principal Amount of Bonds
Capitalized Interest:	2-3 Years.

Sources of Funds	
Bond Issue	<u>\$78,890,000</u>

Uses of Funds

Reserve Account	\$ 7,890,000
Capitalized Interest	17,750,250
Underwriter's Discount	1,577,800
Costs of Issuance	200,000
Contract Origination Fee	360,000
Deposit to Public Building Construction Fund	<u>51,111,950</u>
TOTAL USES OF FUNDS	<u>\$78,890,000</u>