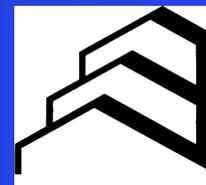


Financing Photo Voltaic (Solar Energy) Systems

Zero Emissions

Case Study



**CALIFORNIA
HOUSING
PARTNERSHIP
CORPORATION**



Available Financing Mechanisms

- ✧ Tax Credits
- ✧ Rebates
- ✧ Grants and Loans



Tax Credits

- ✧ **Federal Low Income Housing Tax Credits**
- ✧ **Business Tax Credit**

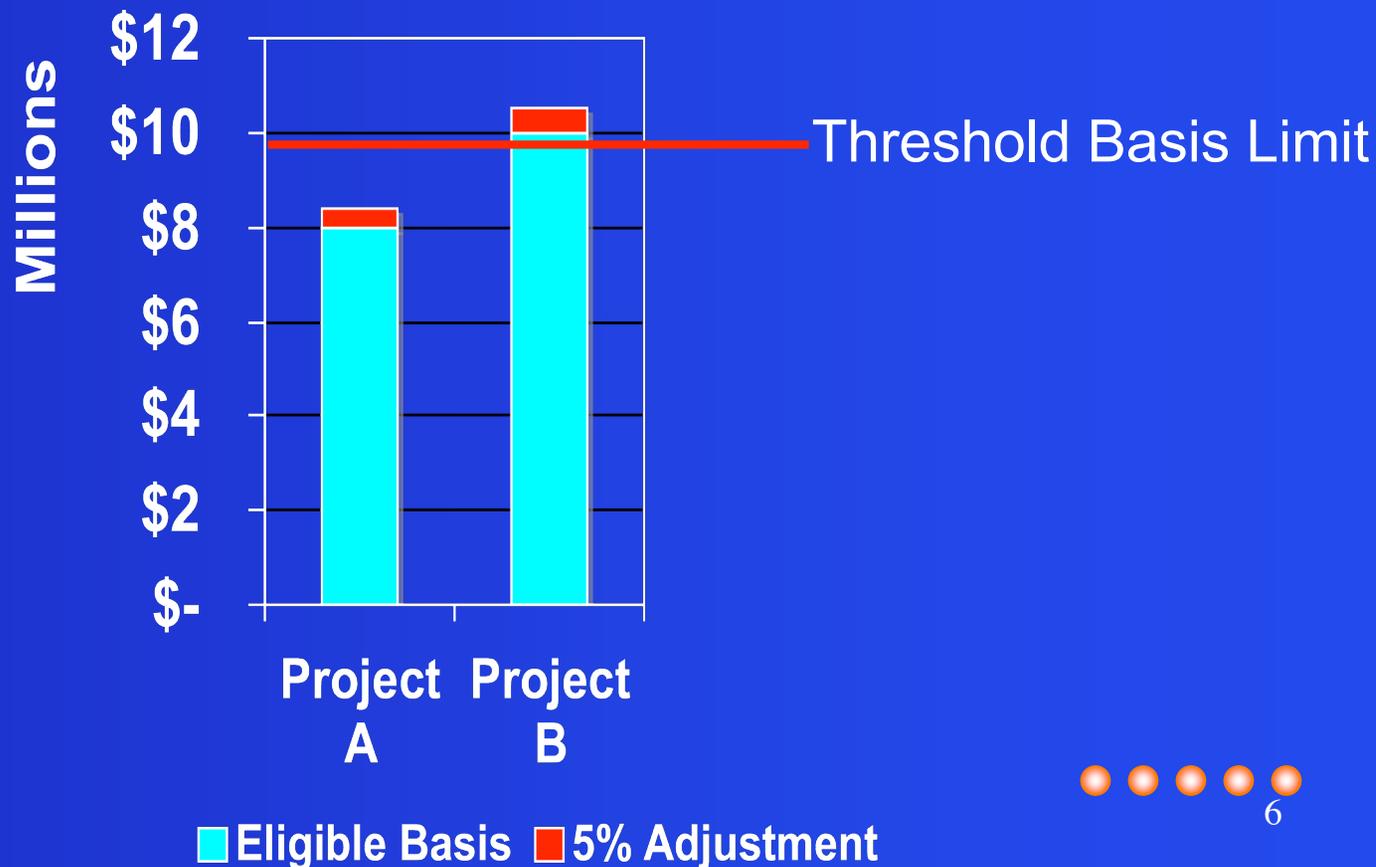
Housing Tax Credits (cont.)

- ✧ TCAC regulations encourage developers to incorporate distributive energy technologies (PV Systems) in projects
- ✧ TCAC allows a 5% increase in threshold basis, which determines the maximum amount of tax credits a developer can request

Housing Tax Credits (cont.)

- ✧ The 5% threshold increase can create additional investor equity
- ✧ Project's eligible basis (construction and construction related costs) must exceed the threshold basis limit before the 5% adjustment to create additional equity

Threshold Basis Limit Example



Business Tax Credit

✧ **Thirty Percent Business Tax Credit**

- Project must Place in Service in 2006 or 2007
- Otherwise, Business Tax Credit is Ten Percent

✧ **Available to businesses that invest or purchase qualified solar energy systems**

- Tax credit taken in the first year of operations
- Tax credit is only available on the portion of the cost that is not covered by rebates or grants
- Business Tax Credit must be reduced from eligible basis if combining with Low Income Housing Tax Credits



Business Tax Credit

| | <u>CONSTRUCTION ELIGIBLE BASIS</u> |
|--------------------------|--|
| TOTAL ELIGIBLE COSTS | 12,789,499 |
| Less: | |
| Business Tax Credit | (208,011) |
| Non-Eligible (HOME): | (1,000,000) |
| ELIGIBLE BASIS | 10,581,488 |
| THRESHOLD BASIS LIMIT | 10,537,202 |
| REQUESTED ELIGIBLE BASIS | 10,537,202 |

Accelerated Depreciation

- ✧ **Accelerated depreciation is available on the depreciable basis of PV system on the portion of the cost that is not covered by rebates or grants**
- ✧ **Available to businesses that invest or purchase qualified solar energy systems**



Sample Project with PV

- ✧ **Solara, City of Poway in San Diego County developed by Community Housing Works**
- ✧ **New construction of 56 units of large family housing**
- ✧ **Plans to install a 141 kW solar photo voltaic solar system that will generate enough electricity for the entire project**

Project Financing

- ✧ **Conventional bank financing**
- ✧ **Public agency residual receipts loans**
- ✧ **Federal Low Income Housing Tax Credits (9%)**
- ✧ **Business Tax Credit (30%), rebates, and grants for solar energy**



Financing Photo Voltaic

- ✧ **Housing Tax Credits**
 - 5% Threshold Basis Adjuster
- ✧ **Business Tax Credits**
 - 30% tax credit and accelerated depreciation on costs not paid by rebates/grants
- ✧ **Increased supportable debt from reduced tenant utility allowances**
- ✧ **California Energy Commission (CEC) Rebate**
- ✧ **Grants funded to energy consultants, which are not shown in development budget**

PV Sources and Uses

| <u>Total Cost</u> | | <u>Total Sources</u> | |
|-------------------|-----------|----------------------|-----------|
| Base Cost | 968,000 | Housing Tax Credits | 405,000 |
| GC Stack* | 136,000 | Business Tax Credits | 208,000 |
| | | Additional Debt | 82,000 |
| | | CEC Rebate | 409,000 |
| | ===== | | ===== |
| TOTAL | 1,104,000 | | 1,104,000 |
| | | Surplus/(Gap) | - |

*14% for general contractor mark up, insurance, bonds, prevailing wage

Housing Tax Credit - 5% Adjustment

| TCAC BASIS LIMIT FOR THIS PROJECT | | | |
|--|---------|----------------------|------------|
| Unit Type | # Units | Per Unit Basis Limit | TOTAL |
| 0 BR | 0 | 92,324 | 0 |
| 1 BR | 8 | 106,451 | 851,608 |
| 2 BR | 30 | 128,381 | 3,851,430 |
| 3 BR | 18 | 164,329 | 2,957,922 |
| | 56 | | 7,660,960 |
| Additional Basis Adjustments: | | | |
| | | | 654,564 |
| | | | 1,532,192 |
| | | | 306,438 |
| | | | 383,048 |
| TOTAL THRESHOLD BASIS LIMIT* | | | 10,537,202 |
| TOTAL ELIGIBLE BASIS | | | 12,789,499 |
| Over (Under) | | | 2,252,296 |

Housing Tax Credit (cont.)

- ✧ **The 5% increase in Threshold Basis for renewable energy technology is \$383,048**
- ✧ **Investor purchases the housing tax credits at \$1.04**
- ✧ **Results in \$405,000 in investor equity***
 - *After to 130% DDA boost, 2% credit reduction, and 7.98% credit rate, per TCAC 2005 regulations

Business Tax Credit

| | |
|---|------------------|
| Total PV Depreciable Basis | 1,104,000 |
| less: Grants/Rebates | (409,000) |
| Basis for Business Tax Credit | 695,000 |
| Credit Percentage | 30% |
| Total Business Tax Credit (rounded) | 208,000 |
| Investor purchases for \$1.00/credit | 208,000 |

Business Tax Credit (cont.)

- ✧ Investor purchases the business tax credit at \$1.00 per credit
- ✧ Results in \$208,000 in additional investor equity
- ✧ Business Tax Credit must be subtracted from eligible basis when calculating the Housing Tax Credits
- ✧ Also, the depreciable basis for the housing tax credit is depreciated on a faster schedule, increasing the internal rate of return to the investor



Additional Supportable Debt

- ✧ The owner's operating budget line item for common area electricity is reduced to zero
- ✧ Tenant Utility Allowances for electricity are reduced to zero
- ✧ The above savings are off-set by a \$10 per unit per month Interconnection Fee paid to utility company
- ✧ The above changes increase the amount of supportable debt provided by the permanent lender



Additional Supportable Debt (cont.)

- ✧ **Approximately \$82,000 in additional debt can be supported from the electricity savings**
- ✧ **Conventional lenders need to allow utility allowance savings to be leveraged into a higher loan amount**
- ✧ **Specialized energy investment firms can provide subordinated debt products to leverage the electricity savings**

Estimated Cost of PV

| Total Cost | | Total Sources | |
|------------|-----------|----------------------|-----------|
| Base Cost | 968,000 | Housing Tax Credits | 405,000 |
| GC Stack* | 136,000 | Business Tax Credits | 208,000 |
| | | Additional Debt | 82,000 |
| | | CEC Rebate | 409,000 |
| | ===== | | ===== |
| TOTAL | 1,104,000 | | 1,104,000 |
| | | Surplus/(Gap) | - |

*14% for general contractor mark up, insurance, bonds, prevailing wage

