



# California Utility Allowance Calculator (CUAC)

Green Affordable Housing Coalition  
Oakland, CA

June 9, 2009

Adrian Ownby  
High Performance Buildings and Standards Development Office  
Efficiency and Renewable Energy Division  
[aownby@energy.state.ca.us](mailto:aownby@energy.state.ca.us) / 916-651-3008



# Background

- 2 Problems Solved
  - Getting power from one PV system credited to multiple tenant meters in a cost effective manner will be solved by Virtual Net Metering
  - Nonexistent developer financial incentive for increasing energy efficiency and using renewable generation due to inaccurate utility allowances solved by using the California Utility Allowance Calculator



# Implications of using the CUAC

\$15 doesn't really mean much to my  
project . . . does it?



# Situations, Decisions, Consequences

- A “Typical” 9% Tax Credit Project
  - ✓ 80 low income units with 1 manager unit
  - ✓ New construction
  - ✓ Large family project
  - ✓ QCT or DDA location
  - ✓ Majority of funding expected from tax credit equity
  - ✓ Hard debt loan with multiple sources of soft subordinate funding



**I'm In Business To Make Money!**



# I'm In Business To Make Money!

- Situation:
  - ✓ The project is a very strong project and perfectly viable as is.
  - ✓ It meets all the minimum requirements.
  - ✓ The developer has built several projects in this city, knows the area, knows the risks.



# I'm In Business To Make Money!

- Decision: Developer decides to pocket the additional cash that results from using the California Utility Allowance Calculator



# I'm In Business To Make Money!

- Consequences:
  - ✓ Increased profit taking of \$5 per unit = \$4800 per year.
  - ✓ Increase in the DSCR from 1.15 to 1.18 in Year 1.
  - ✓ Marginally improved position to syndicate or directly place the tax credits due to lower risk.
  - ✓ Regular deterioration of the project as a place to live and as an investment.



I've Got Bills to Pay . . .



# I've Got Bills to Pay . . .

- Situation:
  - ✓ The project is a strong project, but located in a very competitive market.
  - ✓ Each year expenses increase at or greater than the rate of inflation.
  - ✓ The developer is expecting a longer than normal lease-up period and higher than average turnover.



# I've Got Bills to Pay . . .

- Decision:
  - ✓ Developer decides that some competitive edge is needed.
  - ✓ Considering various energy efficiency measures, the decision is made to go with those cost-effective measures that increase tenant comfort but with a relatively quick payback or payoff.
  - ✓ Also decides to add increased security measures.



# I've Got Bills to Pay . . .

- Consequences:
  - ✓ Increased costs of \$200,000 offset by tax credit equity and utility incentives:
    - +\$200,000 in costs = \$260,000 in qualified basis
    - \$175,500 from tax credit equity (\$234,000 in total federal tax credits x \$.75 per tax credit)
    - \$20,000 in utility incentives
    - =\$4,500 in additional debt



## I've Got Bills to Pay . . .

- ✓ Increased cash flow of \$10 per unit
  - = \$9,600 per year
  - \$365 for debt service
  - \$8,800 for additional/more realistic operating expenses including increased maintenance, security and a lease-up incentives
  - = \$435 in increased revenue
- ✓ No substantial change in the DSCR



## I've Got Bills to Pay . . .

- ✓ Slight decrease in tenant turnover due to more market appropriate operating expensing and increased tenant retention.
- ✓ Marginally improved position to syndicate or directly place the tax credits.
- ✓ Marginal improvement in the project as a place to live and as an investment.
- ✓ Lower energy consumption and green house gas emissions associated with the development.



**Green Building is \$mart Business**



# Green Building is \$mart Business

- Situation:
  - ✓ Developer is faced with a very competitive market.
  - ✓ Additionally, green building is emphasized by state laws and local ordinances.
  - ✓ The Developer's equity investors take a longer-term view than most.



# Green Building is \$mart Business

- Decision:
  - ✓ Developer decides that a substantial competitive edge is needed.
  - ✓ Considering various energy efficiency measures, the decision is made to go with those cost-effective measures that increase tenant comfort first, but to also include some longer-term cost-effective measures.



# Green Building is \$mart Business

- Consequences:
  - ✓ Increased costs of \$900,000 fully offset by tax credit equity, state and local utility incentives:
    - +\$900,000 in costs = \$1,170,000 in qualified basis
    - \$842,400 from tax credit equity financing (\$1,053,000 in total federal tax credits x\$.80 per tax credit)
    - \$28,800 in utility incentives
    - \$120,000 in solar incentives
    - =-\$91,200 hard debt



# Green Building is \$mart Business

- ✓ Increased cash flow of \$15 per unit
  - +\$14,400 in Year 1
  - +7,756 for less debt service
  - \$14,800 for additional operating expenses  
including increased PV maintenance costs, etc.
  - =+\$7,356 in increased revenue
- ✓ Substantial change in the DSCR from 1.15 to 1.29  
in Year 1



# Green Building is \$mart Business

- ✓ Decrease in tenant turnover due to improved competitive position of the project in the marketplace.
- ✓ Improved position to syndicate or directly place the tax credits.
- ✓ Substantial improvement in the project as a place to live and as an investment.
- ✓ Lower energy consumption and green house gas emissions associated with the development.



# Getting the Maximum Value from the CUAC

- Find a good energy analyst and bring that analyst (who will sign the CUAC output) into the development process as soon as possible.
- The CUAC is a flexible, iterative tool – use it to explore options and help you find the best set of energy efficiency and renewable generation measures for your project.



# Wrap Up

Examples vs. Reality

Questions?

Adrian Ownby

[aownby@energy.state.ca.us](mailto:aownby@energy.state.ca.us)

916-651-3008

[http://www.gosolarcalifornia.org/affordable\\_housing/cuac.html](http://www.gosolarcalifornia.org/affordable_housing/cuac.html)