

## Solar Marketing & Payback

Andy Black 

Solar Energy International 

July 23, 2005



## Thanks

- \* Solar Energy International
- \* Johnny Weiss & Sandy Pickard
- \* Todd Bartolf
- \* The SEI Staff
  
- \* You for coming

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## Agenda

- \* Areas of Need in Solar:
  - o Marketing Solar
    - \* Marketing Overview
  - o Financial
    - \* Payback on Solar Electric Systems
    - \* Proving the Payback Analysis

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## Financial Payback on California Residential, Commercial, & Municipal/Non-Profit Solar Electric Systems



## Financial Payback

- \* Payback on solar isn't the most important thing...
- \* ... it's the only thing the vast majority of potential solar homeowners care about

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## Right or Wrong


- \* 95% see energy as a commodity
- \* Few will pay more
- \* Must meet them on their terms:

## FINANCIAL!

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## Attractive Economics

- ★ CA PV systems can be financially attractive to customers who use more than \$75/mo in electricity, defined as:
  - ★ Annual Rate of Return greater than 9%
  - ★ Increase in property value greater than system net cost
  - ★ Positive cash flow using equity financing compared to utility bill savings

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## Why is this Needed?

If we're going to put solar on every roof, it needs to make \$ense.




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## Factors That Make Solar Viable in California

- ★ Net Metering on an Annual Basis & Time of Use Billing
- ★ California's Tiered Rate System with High Electric Rates & High Inflation
- ★ Incentives: Rebate Programs & Tax Benefits for Solar


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## Net metering


- ★ Net metering
  - Exchange of Energy at full value
    - ★ Both ways
    - ★ 100% efficient battery
  - Annual Cycle
- ★ Available in CA & 38 other states

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## Net Metering

Sell By Day:




Power to or from Utility

Buy At Night:




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## Net Metering...

- ★ Sell to the "Grid" during the day
  - Spin your meter backwards
  - Store credits at full retail
- ★ Buy from the "Grid" at night
  - Use up stored credits
- ★ In Winter, use up Summer credits


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## Residential Time of Use

- Energy Charge based on time of day (PG&E E7 Rates):
  - 29¢ in summer afternoons (peak)
  - 11¢ in winter afternoons
  - 9¢ (off-peak)
  - Plus tiered usage surcharges

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## Time Of Use

- Peak rates are Summer Afternoons ...

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Midnight - 6am	Off-Peak	Off-Peak	Off-Peak	Off-Peak	Off-Peak	Off-Peak	Off-Peak
6am - Noon	Off-Peak	Off-Peak	Off-Peak	Off-Peak	Off-Peak	Off-Peak	Off-Peak
Noon - 6pm	Off-Peak	Peak	Peak	Peak	Peak	Peak	Off-Peak
6pm - Midnight	Off-Peak	Off-Peak	Off-Peak	Off-Peak	Off-Peak	Off-Peak	Off-Peak

... the best time to sell  
Available only in some areas


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## Time of Use with Annual Net Metering

- Net Metering on an annual basis combined with
- Time Of Use metering


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## Value of Residential Time Of Use Net Metering

- Sales during peak @ 29¢
- Purchases off-peak @ 9¢
- Ratio is about 3 to 1 in customer favor
- Can reduce system size up to 40%:
  - Reduction depends on % on-peak usage
  - Shading and orientation

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## Time of day shading analysis




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## Factors That Make Solar Viable

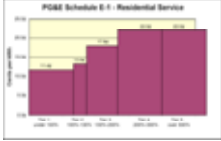
- Net Metering on an Annual Basis & Time of Use Billing
- California's Tiered Rate System with High Electric Rates & High Inflation
- Incentives: Rebate Programs & Tax Benefits for Solar

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## Tiered Rate System

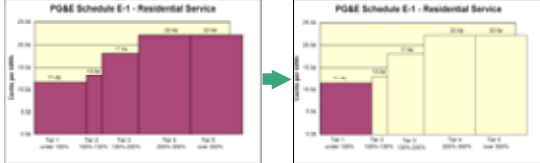
- Severely penalizes larger residential users for their excesses
- As their usage increases, the rate for incremental usage increases
- The highest rates top out at 22¢
- Solar systems offset the most expensive usage first



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## Tiered Rate System



Use/Bill Before Solar  
Marginal Use at 22¢

Small Net Use After Solar  
Marginal Use at 11.4¢


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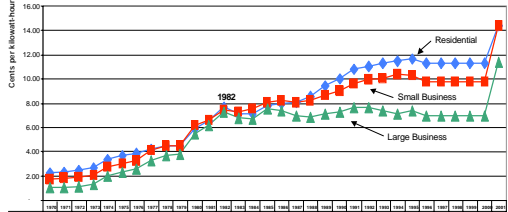
## Electric Rates & Inflation

- Electric Rates increased 6.7% /yr
  - 1970-2001 Average
- CPI/Inflation was 5.1% over same period
  - CPI: Consumer Price Index

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## California Electric Rates Residential, Small Business, and Large Business Sectors 1970 to 2001\*



Source: Prepared by the CPUC Energy Division. Dataset from Energy Information Administration (EIA), DOE/EIA-0376(05), State Energy Price and Expenditure Report, 1995. Tables 26.3b, 1996 through 2000 reflects AB 1890 frozen rates. 2001 rates include a cost increase in SCE and PG&E.  
\*Rates only for SCE and PG&E.


California Public Utilities Commission



## Factors That Make Solar Viable

- Net Metering on an Annual Basis & Time of Use Billing
- California's Tiered Rate System with High Electric Rates & High Inflation
- Incentives: Rebate Programs & Tax Benefits for Solar


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## Current Incentive Programs

- Rebates
- Tax Benefits
- Net Metering
- Assessment holidays
- For incentives in others states see the DSIRE database: [www.dsireusa.org](http://www.dsireusa.org)


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## CA Energy Commission Rebate Program

- \* Under 30 kW
  - o California Energy Commission
  - o [www.consumerenergycenter.org/erprebate](http://www.consumerenergycenter.org/erprebate)
  - o No funds remain for systems over 30kW
- \* \$2.80/watt (CEC AC watt)
- \* Utility connected systems only
  - o Stand alone not eligible


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## Tax Benefits

- \* State Tax Credit
- \* Federal Tax Credit
- \* Federal Accelerated Depreciation
- \* Only apply to taxable entities (not schools, non-profits, gov't, etc)


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## CA State Tax Credit

- \* 7.5% of net cost of system (after rebate & any federal tax credit) up to 200kW
- \* Must be installed by end of 2005
  - o Inspected & operational
- \* FTB form 3508
  - o FTB: Franchise Tax Board
- \* May be renewed for future years
- \* May be effectively federally taxable


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## Federal Tax Credit

- \* 10% Investment Tax Credit
- \* IRS Form 3468
- \* Unused credit can be carried forward
- \* Commercial (including home businesses - with caution)
- \* New Fed Tax Credits coming?

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## Federal Depreciation

- \* MACRS 5-Year Accelerated Depreciation
  - o MACRS: Modified Accelerated Cost Recovery System
- \* IRS Form 4562
- \* Equivalent of tax deducting system's cost over 5.5 years = System Cost \* Tax Rate
- \* Commercial (including home businesses)


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## Other Added Value: RECs, TRCs, Green Tags

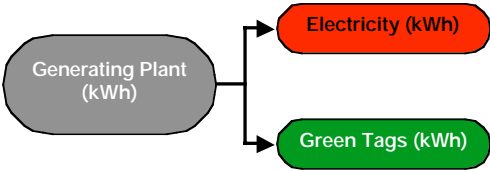
- \* RECs = Renewable Energy Credits
- \* TRC = Tradable Renewable Certificates
- \* Green Tags = RECs = TRCs
- \* What are these?
  - o The green value part of a solar kWh

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## What Are RECs?

- \* The green part of a solar, wind or other renewable kWh




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## REC Value

- \* RECs have value to other consumers
  - o Those who can't get solar directly
  - o Utilities who need it to get into compliance with emissions requirements.
- \* Value ranges from 1¢ to 15¢/kWh
  - o Depends on location, type & term


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## REC Value

- \* REC sale value can be added to other value generated by the system to calculate payback, etc.
  - o Not included in any examples here
- \* Challenges in aggregating from small systems
- \* The best performing systems produce the most RECs


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## The Ideal Situation

- \* Residence electric bill > \$75/month
- \* No Shade
- \* Facing Southwest, South, or West
- \* 5:12 roof pitch
- \* PG&E Territory


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## Financial Analysis Methods

- \* Simple Payback
- \* Total Lifecycle Payback
- \* Rate of Return analysis
- \* Cash Flow when financing
- \* Increase in Appraisal Valuation


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## Overview of Each Test


- \* Simple Payback: In reasonable time
- \* Total Lifecycle Cash Flow
  - o Gives back lots more than cost over time
- \* Rate of Return analysis: 7-11+% returns
- \* Cash Flow when financing: Cash Positive
- \* Increase in Appraisal Valuation
  - o Appraises for more than it cost

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## Simple Payback


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## Simple Payback

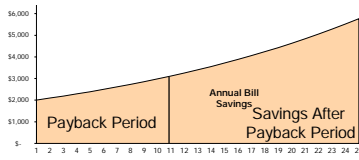
- \* Time to "Payback" - how quickly do you get your money back
- \* Assuming electric inflation in savings
- \* Typical results: 10-13 years
- \* Not a good measure

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## Simple Payback - A Poor Test

- \* Doesn't value savings after "payback" which are much larger




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## Simple Payback - A Poor Test

- \* Doesn't value savings after "payback" which are much larger
- \* Isn't easily comparable to other investments (stocks, etc).
  - o Not interest rate based
  - o Taxable vs. non-taxable earnings


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## Simple Payback Analysis


- \* Calculate total net system cost
- \* Calculate annual savings for first year
- \* Adjust 1st year savings for several following years
- \* Add up successive years until it matches total net system cost.
- \* This is the number of years to payback, including inflation in electric rates.

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## Total Lifecycle Payback


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## Total Lifecycle Payback

- \* Total amount saved over 25 year life of system compared to system net cost
- \* Assuming electric inflation in savings
- \* A better measure


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## Total Lifecycle Payback

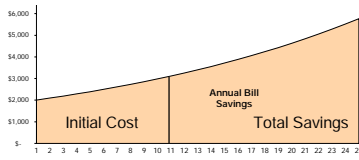
- \* Usually shows savings of 2x to 3x times initial cost
- \* Shows the future savings better than Simple Payback - a more fair test
- \* Drawback: Doesn't reflect the time value of money: Today's \$ are worth more than future \$

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## Total Lifecycle Payback

- \* Total Savings (whole area) is much larger than Initial Cost




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## Total Lifecycle Payback Residential Examples


Pre-Solar Bill	kWh per Month Usage	System AC Size	Final Net Cost w/ Tax Benefits & Rebate	Cumulative Savings over first 25 years (including inflation)	Lifecycle Payback Ratio
\$77	600	3.0 kW	\$18K	\$39K	220%
\$180	1100	5.1 kW	\$28K	\$89K	314%
\$268	1500	7.3 kW	\$39K	\$136K	348%

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## Residential Lifecycle Payback

- \* Residential Lifecycle Payback gets better with higher usage: - High Tiers
- \* As usage increases, the rate for incremental usage increases
- \* The highest rates top out at 22¢
- \* Solar systems offset the most expensive usage first




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## Best Tests of Solar's Viability


- \* Tests for financial viability:
  - Simple Payback
  - Total Lifecycle Payback
  - Rate of Return analysis
  - Cash Flow when financing
  - Increase in Appraisal Valuation

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## Rate of Return Analysis


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## Rate of Return Analysis

- ★ Means: Finding the effective interest rate yield on the solar investment
  - Uses Internal Rate of Return (IRR) analysis
- ★ Useful for comparison with other investments w/ known Rates of Return
  - Ie. Stocks: 10.5% over last 80 years
  - Commercial/business investments
  - Cost of issuing municipal bonds


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## Set Up & Inclusions

- ★ 25-year timeline - yearly cash flows
- ★ Include cost and benefit components
  - System cost & rebates
  - Tax benefits and consequences
  - Electric bill savings, Inflation
  - Cleaning, maintenance, inverter replacement, panel degradation

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## IRR Analysis

- ★ For each year, sum up the benefits and costs
  - Result will be a series of 25 annual net inflows or costs
- ★ Apply IRR (internal rate of return) analysis to the 25 year series
- ★ Gives equivalent annual yield rate


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## Residential Analysis

- ★ Ideal residential customers can see pre-tax IRRs in the 9% to 15% range
  - Comparable to long-term stock market (~10.5% over the last 80 years)
  - Many Californians have ideal situation
- ★ Must adjust for "pre-tax" conditions


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## Residential Pre-Tax

- ★ Most investments are taxable
  - Stocks, Bonds, Savings interest, etc.
  - (the 10.5% yield is pre-tax)
- ★ Convert solar analysis to pre-tax value so all investments are on even playing field and are comparable
- ★ Must convert to the appropriate pre-tax values for savings, tax benefits, etc.


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## Residential Pre-Tax Conversion

- \* Convert all costs & benefits to pretax value as appropriate
  - o Initial capital cost is not increased
  - o This is the "principal"
- \* All other values get inflated by tax bracket [divided by (1-tax rate)]


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## Other Residential Adjustments

- \* Federal taxes increase because of State Tax Credit
  - o If federal taxes are itemized, customer deducts state taxes
  - o State Tax Credit reduces this deduction, increasing fed taxes
  - o Equivalent to federally taxing credit


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## Residential Variables & Assumptions

- 28% federal tax bracket and 9.3% state tax bracket
- Facing south, 22° pitch, simple comp roof, full service provider, no complications near San Jose, CA
- Slightly conservative real system performance (approx 1,570 AC kWh per CEC AC kW), no shading
- Final Net Cost is total installed system costs-Rebate+\$500 Permit+\$277 TOU meter fee. System maintenance cost is 0.25% of gross system cost per year, adjusted for inflation
- Billing starting on PG&E E1-XB, switching to PG&E E7-XB TOU Net Metering
- 5.0% electric inflation. Module degradation 0.5% per year
- Inverter replacement costing \$3,000 each occurs in year 15


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## Ideal Rates of Return Residential Examples

Pre-Solar Bill	kWh per Month Usage	System AC Size	System Gross Cost	Final Net Cost w/ Tax Benefits & Rebate	Pre-Tax Annual Return
\$77	600	3.0 kW	\$26K	\$18K	9.1%
\$180	1100	5.1 kW	\$43K	\$28K	13.7%
\$268	1500	7.3 kW	\$60K	\$39K	15.4%

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## Efficiency

- \* Efficiency improves the results
- \* Spend \$1,000 to reduce usage 20%
- \* Saves 20% in system cost (minus \$1K)
  - o Overall system savings is ~15%
  - o Same smaller new electric bill
- \* IRR increases - less cost, same savings
  - o Big jump in return (13.7%=>17.4%)


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## Commercial Analysis

- \* Ideal commercial customers can see after-tax IRRs in the 7% to 9% range
  - o Comparable to other business investments
  - o Plus has green marketing and morale benefits
- \* Must properly factor all benefits and costs

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## Complete Commercial Analysis

- Proper commercial analysis is after-tax
- A. Extra incentives:
  - Federal Tax Credit & Depreciation
- B. Loss of electric expense tax deduction
- A & B approximately offset each other
  - Rates of return are comparable to residential, but are after tax values, so are worth more.


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## Commercial Variables & Assumptions

- 35% federal tax bracket and 8.84% state tax bracket
- Facing south, 15° tilt rack, simple flat roof, full service provider, no complications near San Jose, CA
- Slightly conservative real system performance (approx 1,570 AC kWh per CEC AC kW), no shading
- Final Net Cost is total installed system costs-Rebate+\$1200 Permit+\$443 TOU meter fee. System maintenance cost is 0.25% of gross system cost per year, adjusted for inflation
- Billing starting on PG&E A1, switching to PG&E A6 TOU Net Metering
- 5.0% electric inflation. Module degradation 0.5% per year
- Inverter replacement costing \$3,000 each occurs in year 15

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## Ideal Rates of Return Commercial Examples

Pre-Solar Bill	kWh per Month Usage	System AC Size	System Gross Cost	Final Net Cost w/ Tax Benefits & Rebate	After-Tax Annual Return
\$236	1500	7.3 kW	\$62K	\$32K	7.4%
\$464	3000	14.6 kW	\$120K	\$60K	7.9%
\$920	6000	29.1 kW	\$233K	\$113K	8.4%


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## Municipal Analysis

- Ideal municipal & non-profit customers can see non-tax IRRs in 6% to 8%
  - Comparable to funding costs (muni bonds)
  - Long term thinking, modest returns OK
  - Has green societal and moral benefits
- Simpler analysis of benefits and costs


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## Complete Municipal Analysis

- Municipal & non-profit analysis is not affected by taxes
- A. No extra incentives (tax credits or depreciation) ☹️
- B. No loss of electric expense deduction ☺️
- These approximately offset each other
- Rates of return are slightly lower than commercial


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## Municipal Variables & Assumptions

- Facing south, 15° tilt rack, simple flat roof, full service provider, no complications near San Jose, CA
- Slightly conservative real system performance (approx 1,570 AC kWh per CEC AC kW), no shading
- Final Net Cost is total installed system costs-Rebate+\$1200 Permit+\$443 TOU meter fee. System maintenance cost is 0.25% of gross system cost per year, adjusted for inflation
- Billing starting on PG&E A1, switching to PG&E A6 TOU Net Metering
- 5.0% electric inflation. Module degradation 0.5% per year
- Inverter replacement costing \$3,000 each occurs in year 15


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## Ideal Rates of Return Municipal Examples

Pre-Solar Bill	kWh per Month Usage	System AC Size	System Gross Cost	Final Net Cost w/ Rebate	Annual Return
\$236	1500	7.3 kW	\$62K	\$44K	6.8%
\$464	3000	14.6 kW	\$120K	\$83K	7.4%
\$920	6000	29.1 kW	\$233K	\$156K	8.0%


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## Financial Hazards & Gotcha's

- ★ CA Rebate is federally taxable
  - CEC issues a 1099 to recipient
- ★ Installers or manufacturers should accept the rebate directly
  - No tax to anyone (becomes job revenue)
  - Better customer cash flow
  - Better customer leverage


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## More Gotcha's


- ★ Tax credits and depreciation are on amount after rebate
- ★ If commercial, state tax credit is on amount after Federal Tax Credit
- ★ Depreciation is on 95% of after rebate system cost

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## Cash Flow


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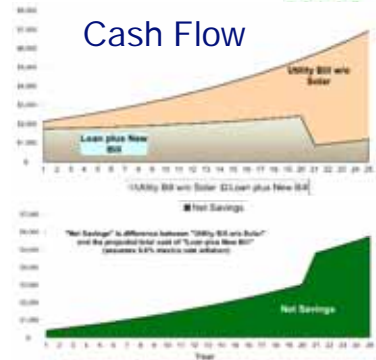
## Cash Flow

- ★ Compares the savings on the utility bill with the cost of financing the system
- ★ At today's rates (<6.5%) and including rebate benefits, cash flow is often positive immediately
  - Cost of borrowing is less than savings on electric bill
  - Stabilizes long term utility costs

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## Cash Flow



- ★ 20 year loan
- ★ Cash positive in Year 0
- ★ Savings Increase over time
- ★ Future costs stabilized


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## Solar Mortgage

- \* Like buying vs. renting, but better
- \* House costs more up front
  - o Pays off over time
- \* Solar costs less up front
  - o Pays off immediately & over time
- \* Protects against inflation
- \* Savings grow over time


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## Equity Financing

- \* Often the most cost effective
  - o Lowest rates
  - o Deductibility of interest
- \* Minimizes large capital outlay
- \* Makes solar system ownership more achievable


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## Cash Flow Analysis

- \* Calculate net cash required to buy
  - o This is the amount to be financed
- \* Calculate monthly loan payments
  - o Based on loan rate, term & amount
- \* Subtract tax savings if loan interest is tax deductible. This is net monthly loan cost
- \* Compare loan cost to after tax value of electric bill savings


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## Cash Flow Residential Examples

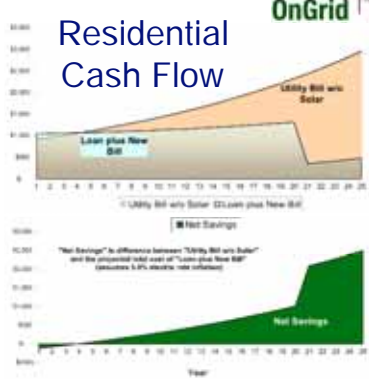
Pre-Solar Bill	kWh per Month Usage	System AC Size	System Gross Cost	Amount Financed	Net Monthly Cash Flow Compared to 6.50% 20-yr Loan
\$77	600	3.0 kW	\$26K	\$18K	(\$10)
\$180	1100	5.1 kW	\$43K	\$28K	\$34
\$268	1500	7.3 kW	\$60K	\$39K	\$72

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## Residential Cash Flow

- \* 3kW residential system offsetting a \$77/month bill illustrating crossover
- \* 6.5% 20 year loan
- \* Many Systems are cash positive from Year 0



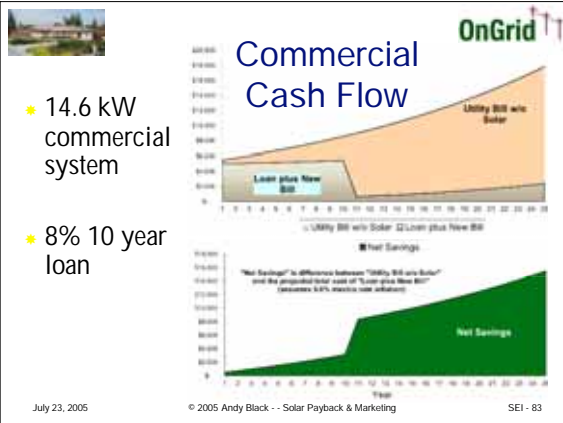
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## Cash Flow Commercial Examples

Pre-Solar Bill	kWh per Month Usage	System AC Size	System Gross Cost	Amount Financed	Net Monthly Cash Flow Compared to 8.00% 10-yr Loan
\$236	1500	7.3 kW	\$62K	\$32K	\$9
\$464	3000	14.6 kW	\$120K	\$60K	\$44
\$920	6000	29.1 kW	\$233K	\$113K	\$131

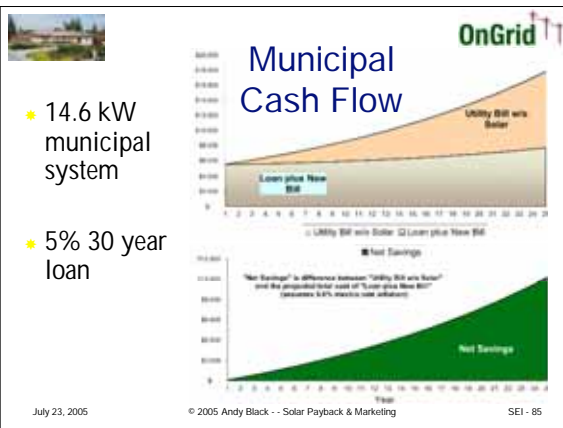
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**Cash Flow Municipal Examples**

Pre-Solar Bill	kWh per Month Usage	System AC Size	System Gross Cost	Amount Financed	Net Monthly Cash Flow Compared to 5.00% 30-yr Loan
\$236	1500	7.3 kW	\$62K	\$44K	(\$10)
\$464	3000	14.6 kW	\$120K	\$83K	\$7
\$920	6000	29.1 kW	\$233K	\$156K	\$63

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**Increase in Appraisal Valuation**

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- 
- Increase in Appraisal Valuation**
- Solar electric systems add to property value by:
    - Reducing or eliminating electric energy operating costs
    - Hedging against inflation
    - Providing an attractive financial vehicle for investment as a property improvement
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- 
- Reduced Cost Increases Value**
- Nevin in the *Appraisal Journal* states: 'The increase in appraisal value for a home is about twenty (20) times the annual reduction in operating costs due to energy efficiency measures'
  - Electric bill savings: \$1,000 per year -  
- Increased appraisal value: \$20,000
  - Article at:  
<http://www.natresnet.org/ratings/resources/appraisal/default.htm>
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## The Rationale

- \* The \$1,000 not spent on electricity, is available to be spent on an equity loan payment...
  - ... at no net change in the cost of living

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## 20:1 Ratio

- \* Based on 5% after tax cost of money
- \* Typical long term mortgage average rates (8.3% before tax)


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## Ratio Varies

- \* Depends on mortgage loan rates
- \* Has varied from 10:1 to over 25:1
- \* Rates are low now (6%), so ratio is 28:1
- \* Unfair to assume high ratio in future when home will be sold
- \* Use 20:1 to be conservative


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## Equity Increase Residential Examples

Pre-Solar Bill	kWh per Month Usage	System AC Size	Annual Savings	Final Net Cost w/ Tax Benefits & Rebate	Appraisal Equity Increase
\$77	600	3.0 kW	\$869	\$18K	\$17K
\$180	1100	5.1 kW	\$2,006	\$28K	\$40K
\$268	1500	7.3 kW	\$3,046	\$39K	\$61K

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## Other Home Improvements

*Remodeling Online* capital recovery rates

Improvement Type	Net Cost	Equity Increase	% Return
Deck Addition	\$6.3K	\$6.7K	104%
Bathroom Remodel	\$10.1K	\$9.1K	89%
Window Replacement	\$9.6K	\$8.2K	85%
Kitchen Remodel	\$44K	\$33K	75%

Source: www.remodeling.hw.net, 2003 Cost vs. Value Report


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## Comparison to Solar

Pre-Solar Bill	System Size	Net Cost	Equity Increase	% Return
\$77	3.0kW	\$17.6K	\$17.4K	99%
\$180	5.2kW	\$28K	\$41K	146%
\$268	7.3kW	\$39K	\$61K	156%
Deck Addition		\$6.3K	\$6.7K	104%
Bathroom Remodel		\$10.1K	\$9.1K	89%
Window Replacement		\$9.6K	\$8.2K	85%
Kitchen Remodel		\$44K	\$33K	75%


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## Limits to Appreciation?

- ★ Would a homebuyer pay more for a used solar system on an existing home?...  
56% more than it's cost?


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## Buyers Do Pay More

- ★ 4% more for homes with decks
  - Nationwide average
- ★ Some areas are much higher:
  - In Boston, San Francisco and St. Louis, buyers paid 215% of cost of a deck
- ★ Similar phenomenon for other types of improvements in some cities, despite the national average being less than 100%


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## Comparison to Solar

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## Price Support

- ★ Even if a future buyer won't pay more than contemporary costs for a new system, The 20:1 ratio product shows there should be price support for paying at least 100% of what a new one costs
- ★ Some assurance of getting money out of the system if need to sell
- ★ In the mean time, enjoy the savings

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## Few Examples in the Marketplace

- ★ Few comparables & documented cases
  - Need a study and more evidence
  - Shea Homes found it improved resale values by \$43K for 2.5kW of PV on a Zero Energy Home
- ★ 12,000 grid tied solar homes in California
  - 95% installed in last three years
- ★ Normal occupancy is 7 years
  - Most have not been offered for sale
  - Most solar homeowners seem to be planning on staying longer than average

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## Reasons For Confidence


- ★ Market support:
  - 14,000+ homeowner purchases in four years
    - ★ Higher likelihood they'll want solar on their new homes when they move
    - ★ 4 cases known
- ★ Likely that many others are interested
  - Especially if the perceived risk is reduced
- ★ Governor is strongly behind solar, SB-1

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## Biases

- \* It has to look good too




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## Counter Examples and Caution

- \* Homebuyer opinions about aesthetics
  - o Some like it, some won't
- \* If the home looks weird, it can hurt value
- \* Resale value can be lowered when the energy-conserving home looks noticeably different from other homes



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## Suggestions for Other States

- \* Net Metering
- \* Time of Use Metering
- \* Tiered Electricity Pricing penalizing over-consumption
- \* RPS w/ solar carve out (CO Amend 37)
- \* RECs owned by system owner
- \* Auctioned Incentives
- \* Performance Based Incentives (PBIs)


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## Auctioned PBIs


- \* Low bidders get incentive
  - o Maximum benefit from public \$
- \* Auction every 1-2 months
  - o Can try again w/ new bid next auction
- \* Funds divided equally over all auctions for 5-10 years
  - o Stability & predictability for market/industry
- \* Performance Based
  - o Encourages best performing systems, with least need for incentives, and least greedy investors

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## Conclusion

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## Conclusion

- \* On Grid Solar Electric Systems can:
- \* Demonstrably increase property value
- \* Reduces risk of future electric costs
- \* Provides an attractive vehicle for financial investment measured several ways
- \* Oh, it's kinda nice environmentally & socially too...

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## Spreadsheet

- \* Spreadsheet will be available in August
  - o Contact me to let me know if you want to get an announcement
  - o Or sign up on the list

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