

# *Financing Home Energy-Efficiency Upgrades*



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## ***Why are energy efficient homes better?***

### ***Lower Energy Costs***

**You could save 50% or more on home energy costs (up to 90% with solar). Energy efficient homes use state-of-the-art technology to get the most from the energy you use, while using less energy for heating, cooling, and water heating, as compared to a standard home.**

### ***Increased Comfort***

**Energy efficient homes can mean warmer homes in the winter and cooler homes in the summer, because improved duct systems will provide balanced airflow to all of the rooms.**

### ***Improved Air Quality***

**Improved duct systems also benefit you by carrying less pollutants, dust and pollen, thus reducing respiratory disease and Asthma. In addition, because energy efficient homes use less energy, fewer emissions are created during the generation of power for your home.**

## ***Your Benefits of an energy efficient home***

- ✓ **Save Energy = Save Money on Utility Bills**
- ✓ **Protection against rising energy costs**
- ✓ **Improved Indoor Air Quality**
- ✓ **Improved Home Comfort**
- ✓ **Increases the resale value of your home**
- ✓ **Rebates from the State offset the system costs**
- ✓ **Energy Independence, use a renewable energy resource**
- ✓ **Save the environment, reduce greenhouse gas emissions**
- ✓ **Automatic and virtually maintenance free**

# Matrix of Financing Options

	Cash	Credit Card	Line/Credit 2 <sup>nd</sup> Mortg.	Cash-out 1 <sup>st</sup> Mortg.	FNMA Energy Efficient Mortgage	FHA Energy Efficient Mortgage	Berkeley FIRST
Energy Efficiency	✓	✓	✓	✓	✓	✓	-
Energy Efficiency + Solar	✓	✓	✓	✓	-	-	✓

## ***Mortgage Financing Options***

There are different ways to pay for the costs of making your home more energy efficient. Most homeowners choose a mortgage loan as the preferred way.

### ***Cash-Out Refinance***

- **1<sup>st</sup> Mortgage.**

### ***Home Equity Line of Credit (HELOC)***

- **2<sup>nd</sup> Mortgage.**
- **Only mortgage interest is paid, no amortization.**

### ***Home Equity Loan***

- **2<sup>nd</sup> Mortgage.**
- **Amortized loan, paid off over time**

## *Energy Loans*

	<b>Energy Efficient Mortgage FNMA</b>	<b>Energy Efficient Mortgage FHA</b>
<b>Eligible Loans</b>	<ul style="list-style-type: none"> <li>• 15 or 30 year</li> <li>• Purchase or Refinance</li> </ul>	<ul style="list-style-type: none"> <li>• 15 or 30 year</li> <li>• Purchase or Refinance</li> </ul>
<b>Loan Limit</b>	\$546,250.00	\$695,500.00
<b>First Mortgage Max LTV</b>	100.00%	FHA maximum loan limits can be exceeded
<b>CLTV</b>	105.00%	Final LTV may exceed 100% of appraised value when the energy improvements have a present value greater than the cost of upgrades
<b>Minimum Borrower Contribution</b>	3.00%	2.25%
<b>Mortgage Insurance</b>	Ca. 1% annually, paid monthly	1.75% paid at closing 0.5% annually, paid monthly
<b>Qualifying Ratio</b>	41% Single Ratio	A 2% debt-to-ratio stretch offered in loan qualification.

<b>Value of Efficiency Measures</b>	<p>Determined through <i>HERS* Rating</i></p> <p>New homes: Value of EE measures added to appraised value – max 5% of home value</p> <p>Existing: Installed cost of EE measures added to appraised value – max 15% of home value</p>	<p>Determined through <i>HERS* Rating</i></p> <p>All improvements identified by home energy rating as having a combined present value greater than the cost of upgrades.</p> <p>\$4,000 or 5% of the appraised value (whichever is greater) up to a maximum of \$8,000</p>
<b>Renewable Energy</b>	<ul style="list-style-type: none"> <li>• May not be financed.</li> <li>• Solar Hot Water is OK</li> </ul>	<ul style="list-style-type: none"> <li>• May not be financed,</li> <li>• but 203(k) can be used.</li> </ul>

**\*HERS = Home Energy Rating System - website <http://www.cheers.org/>**

- **An independent HERS rater prepares a property report**
- **HERS report spells out cost-efficient measures**
- **Cost about \$250-400**

## ***Berkely FIRST – Property Tax Program***

### ***Financing Initiative for Renewable and Solar Technology***

- Residential and commercial properties
- Loan is repaid through increased property tax bill over 20 years
- Interest rate: Greater of 3.25% over 10-year treasury note, or 6.75%
- Plus 1% administrative fee added to interest rate
- No upfront costs to the property owner
- Compliance with City's Energy Conservation Ordinance required
- No financing of energy efficiency measures
- City will place a lien on the property

## *Energy Loan Examples*

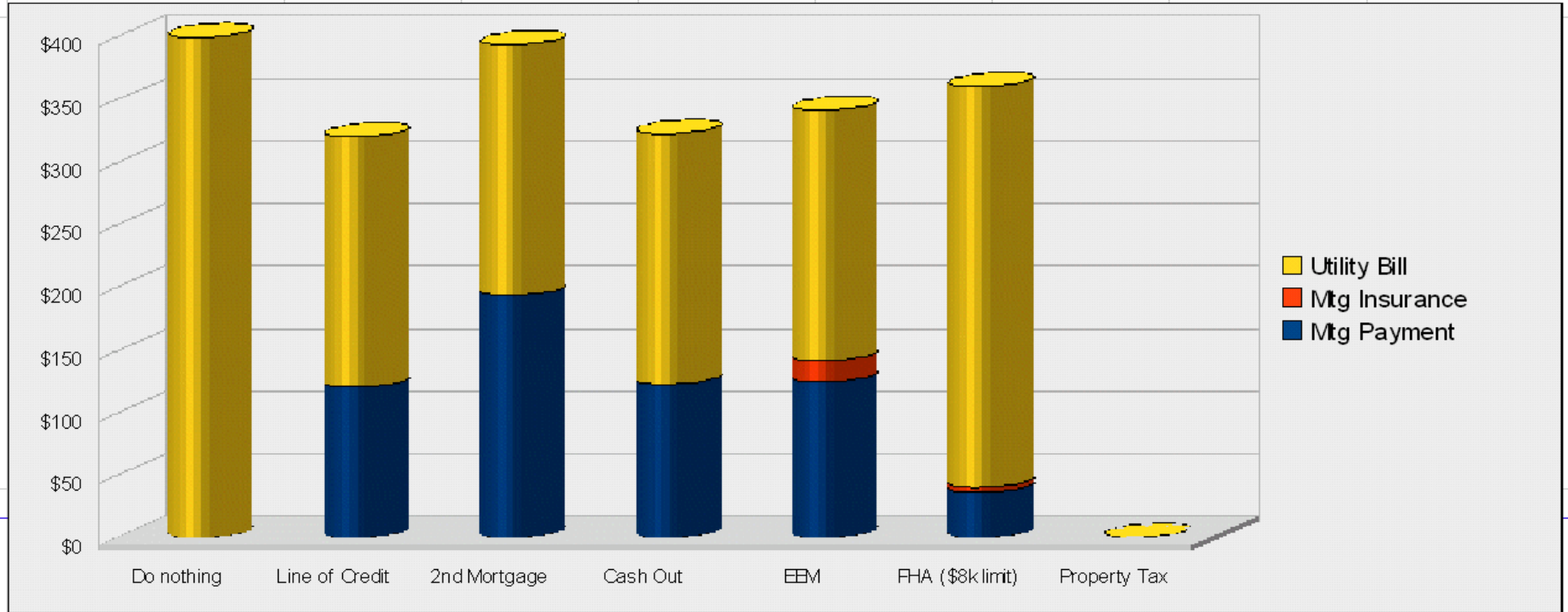
### **Assumptions:**

- The current utility bill is **\$400/mos.**
  - Efficiency shaves **50% off** the utility bill.  
Future bill = \$200
  - Efficiency + Solar reduces the bill by **75%**.  
Future bill = \$100
- 
- 50% energy savings = 50% reduction in utility bill



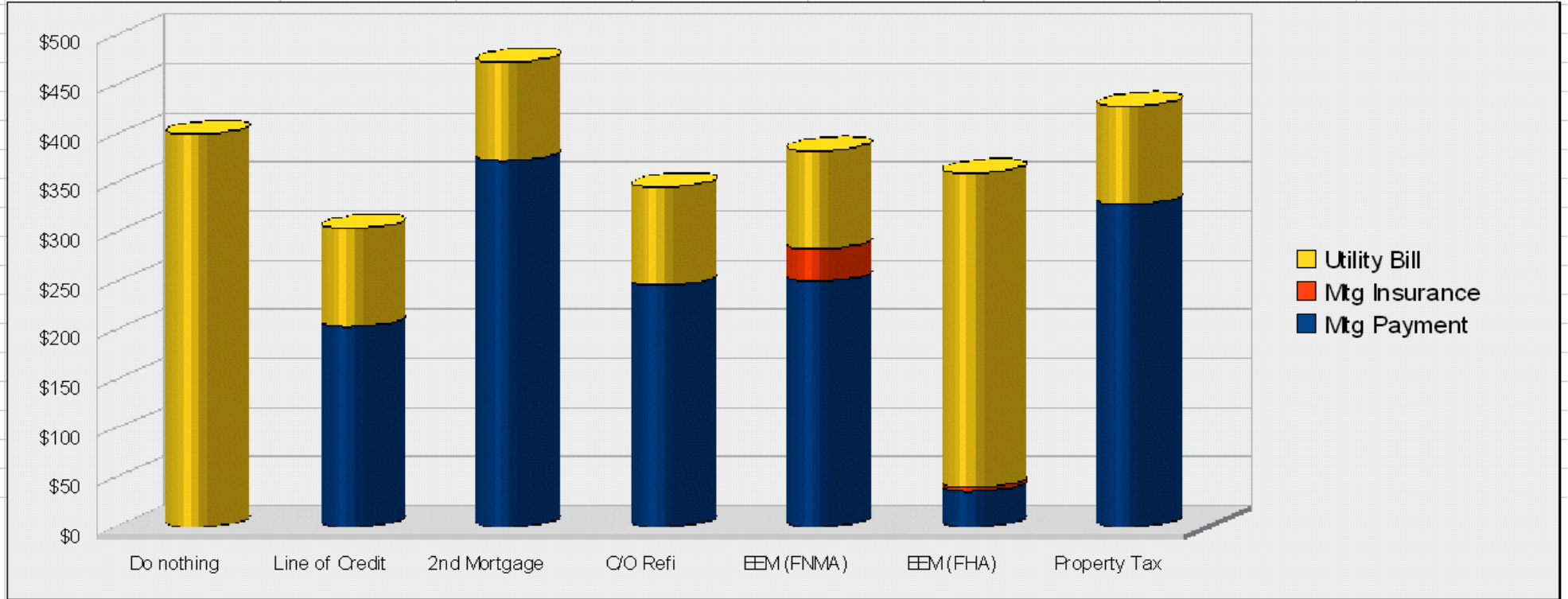
## \$20,000 Energy Efficiency Improvement

	Do nothing	Line of Credit	2 <sup>nd</sup> Mortgage	Cash Out	EEM	FHA (\$8k limit)	Property Tax
<b>Loan Amount</b>		\$20,000	\$20,000	\$20,000	\$20,000	\$8,000	\$0
<b>Interest Rate</b>		7.250%	11.250%	6.250%	6.400%	5.500%	
<b>Mtg Payment</b>		\$121	\$194	\$123	\$125	\$37	
<b>Mtg Insurance</b>		\$0	\$0	\$0	\$17	\$4	
<b>Utility Bill</b>	\$400	\$200	\$200	\$200	\$200	\$320	\$0
<b>Total</b>	<b>\$400</b>	<b>\$321</b>	<b>\$394</b>	<b>\$323</b>	<b>\$342</b>	<b>\$361</b>	<b>\$0</b>
<b>Savings</b>	<b>\$0</b>	<b>\$79</b>	<b>\$6</b>	<b>\$77</b>	<b>\$58</b>	<b>\$39</b>	<b>\$400</b>



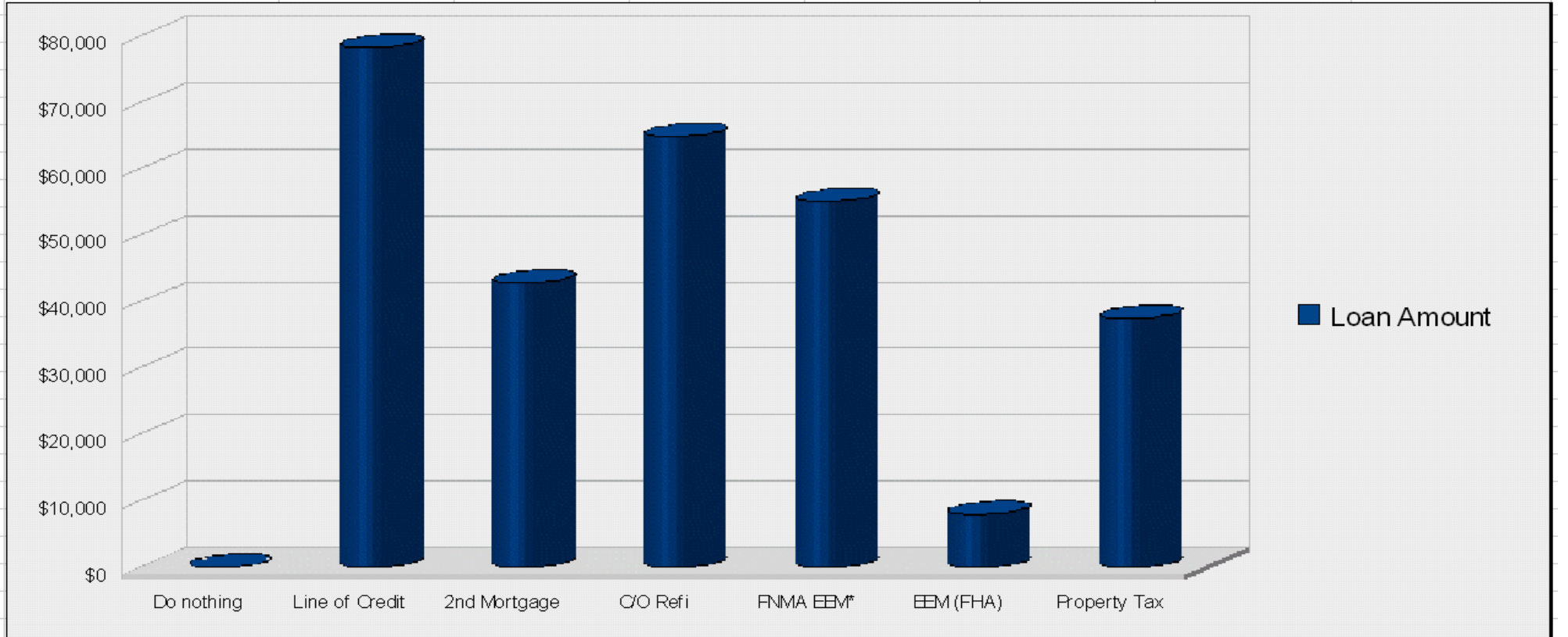
## \$40,000 Efficiency and Solar

	Do nothing	Line of Credit	2 <sup>nd</sup> Mortgage	C/O Refi	EEM (FNMA)	EEM (FHA)	Property Tax
<b>Loan Amount</b>		\$40,000	\$40,000	\$40,000	\$40,000	\$8,000	\$37,500
<b>Interest Rate</b>		6.125%	10.750%	6.250%	6.400%	5.500%	7.750%
<b>Mtg Payment</b>		\$204	\$373	\$246	\$250	\$37	\$328
<b>Mtg Insurance</b>		\$0	\$0	\$0	\$33	4	\$0
<b>Utility Bill</b>	\$400	\$100	\$100	\$100	\$100	\$320	\$100
<b>Total</b>	\$400	\$304	\$473	\$346	\$383	\$361	\$428
<b>Savings</b>	\$0	\$96	-\$73	\$54	\$17	\$39	-\$28



### Maximum Loan Amount for \$400?

	Do nothing	Line of Credit	2nd Mortgage	C/O Refi	FNMA EEM*	EEM (FHA)	Property Tax
<b>Interest Rate</b>	0	6.125%	10.750%	6.250%	7.000%	5.500%	7.750%
<b>Mtg Payment</b>	\$0	\$400	\$400	\$400	\$400	\$37	\$328
<b>Mtg Insurance</b>	\$0	\$0	\$0	\$0	\$33	\$4	\$0
<b><i>Loan Amount</i></b>	<b>\$0</b>	<b>\$78,367</b>	<b>\$42,850</b>	<b>\$64,964</b>	<b>\$55,162</b>	<b>\$8,000</b>	<b>\$37,500</b>



## *What might be financing options in the future?*

- **FHA loan program that includes Solar (renewables)**
- **CEC has working group on EE financing, may result in loan program**
- **Property tax financing similar to Berkeley FIRST**
- **Loan guarantee program**
- **Stand alone loans for EE and renewables**
- **Inclusion of water conservation measures**
- **Renewable Energy Credits**

## *Summary*

- ✓ **Energy efficient homes save energy, money, and the environment**
- ✓ **Mortgages work well for financing Energy Efficiency and Solar**
- ✓ **A variety of loan choices is available**
- ✓ **A HERS report spells out cost-effective efficiency measures**
- ✓ **You can “go green” next time you refinance – It's easy**

Thank you!



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