

Subjects to be covered at SDRES 1-13-2010

1. FHA Energy Efficient Mortgage Program (EEM)
2. FHA Weatherization Program
3. FHA 203 STREAMLINE (K)
4. FHA Solar Program at time of sale or refinance
(Currently being Designed)

Current Status on:

AB 811

Stimulus Funds

City of San Diego

&

CalSPREE

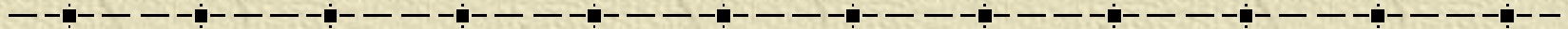
Presented by Dan Perkins

Energy Smart Homes

Dan@EnergySmartHomes.net

www.EnergySmartHomes.net

Electricity Cannot Be Stored - It Must Be Used As Generated



FACTS:

Air Pollution – Global Warming

We are Dependent on Foreign Oil and Gas

You're tired of paying utility bills

Non Energy Efficient Homes are Robbing the Grid of Power.

Population Continues to Grow and People do Need Energy

Energy Prices Continue to Increase with no End in Sight

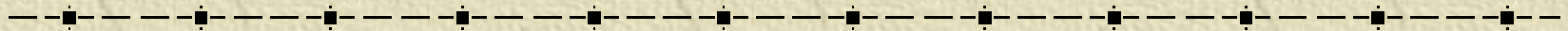
We don't need more power plants and transmission lines

The President, Vice President, Energy Secretary, CA Governor,
Legislature, Utilities and Local Governments all want Energy Efficiency
and Renewables

It's Time to do it so Let's go!!!

Snip from article in the San Diego Union Monday, January 4,

Smart power use among issues facing SDG&E boss



Currently on the front burner with SDG&E is “Power Curtailment” in high wind conditions according to Debra Reed CEO of SDG&E

“That’s just one of the things Reed is facing as she leads the region’s energy utility.”

“Other looming issues are how to encourage people to save power and how to handle the growing popularity of rooftop solar systems under the California Solar Initiative, which provides rebates and incentives”.

“But let me also be clear in something else that I think is really important — and I stress this — is that there’s a tendency to skip over energy efficiency and go right to distributed generation. That, to me, is a huge long-term mistake because what you really need to do is start with the energy efficiency and get the load at the site to the minimum level and to get the peak to the minimum level possible, and then design the photovoltaic system around the efficient application of energy at that site.”



Added Benefits

Tons of Carbon (SMOG) Reduced

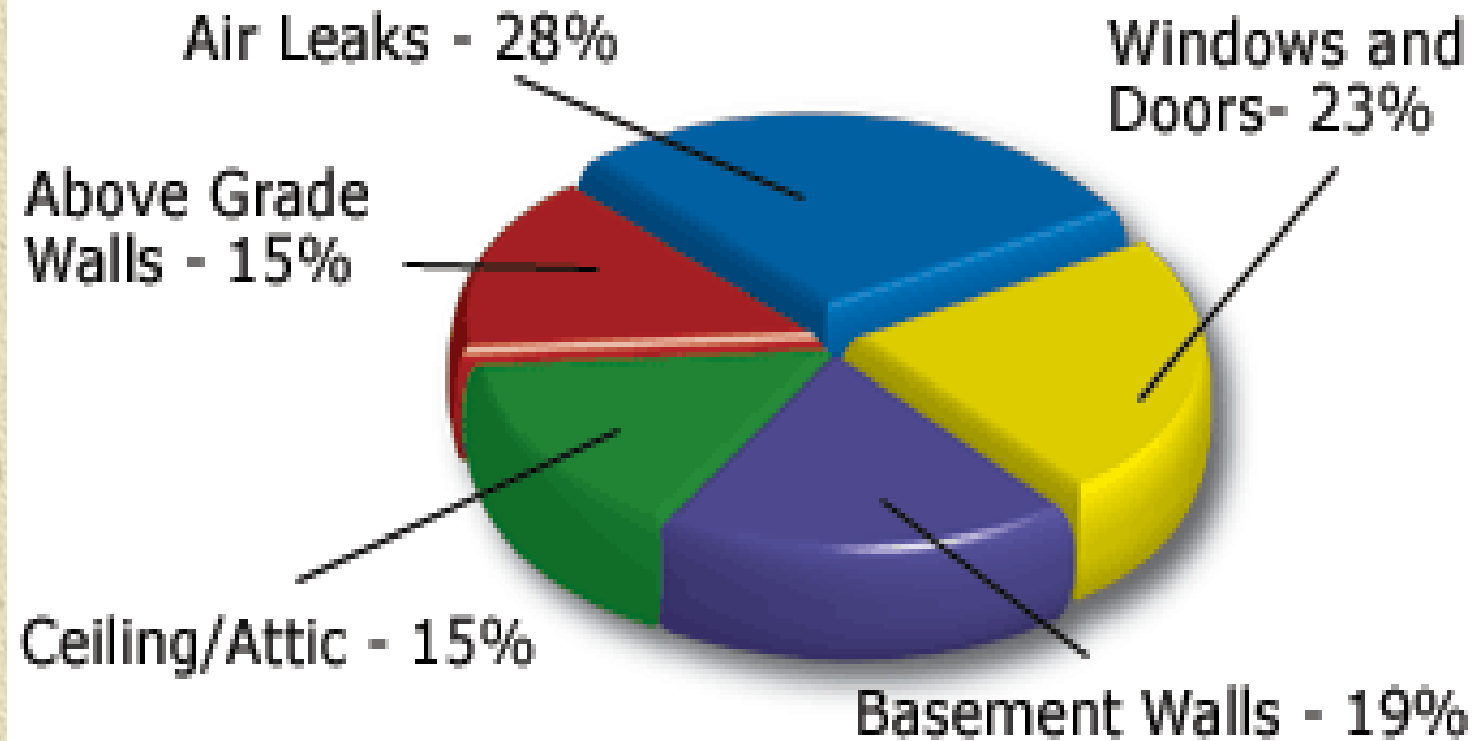
- The upgrade from 56% to 90% efficiency can save 1.5 tons of carbon dioxide emissions each year, which is equal to the elimination of 3,760 of car miles traveled.

Dollars Added to the Economy

- The Average residential EEM improvement is \$12,000
- Solar may add \$25,000.
- 20% of homes sold San Diego County = 1,000 monthly
 - (Currently about 3,000 sales a month - 5,000 normal)

Improvement Each home	Time of Sale EEM's per mo.	Monthly Revenue	Annual Year after Year
\$ 37,000	1,000	\$37,000,000	\$444,000,000
			3,000 SD Jobs Yearly @ \$70,000 yr each job created

Air Leakage (Infiltration)



Potential Energy Efficient Improvements

Buyer may pick which “Cost Effective” improvements they Need, Want or Wish to have installed

- Heating & Cooling Equipment
- Diagnostic Testing
- Water Heating
- Windows & Doors
- Insulation
- Lighting

A California Certified Independent HERS Rater, will evaluate the items in the home that affect the home’s use of energy. The Independent HERS Rater will then prepare a written report (HERS Report)

HERS Energy Rating Organization

HERS is an acronym for **Home Energy Rating Systems**

An umbrella that brings together lending agencies, utilities, energy providers, and the homebuilding industry to rate the energy performance of new construction, existing residences, commercial buildings, HVAC testing and verification.

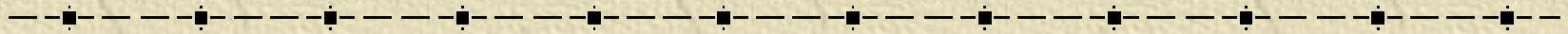
HERS Provider:

Once the California Energy Commission approves a company or person as the “Provider” to operate under California HERS regulations that Provider can then certify independent third party Raters for testing, verification, and certification of energy performance.

HERS Rater:

HERS raters are individuals who have been trained by a California Energy Commission approved HERS Provider to do diagnostic testing and verification, and sign and date the Certificate of Field Verification and Diagnostic Testing certifying that they have verified that the requirements for compliance credit have been met. Existing Residential CHEERS and CalCERT

Each Rating System shall rate the **total combined energy efficiency** of;



- (1) Space heating.
- (2) Space cooling.
- (3) Service hot water.
- (4) Lighting in conditioned space.
- (5) Exterior lighting mounted on buildings or lighting in an unconditioned garage.
- (6) Electric appliances.
- (7) Gas appliances.
- (8) Other interior electric and natural gas uses

Residential Energy Services Network (RESNET):

In April 1995, the National Association of State Energy Officials and Energy Rated Homes of America founded the Residential Energy Services Network (RESNET) to develop a national market for home energy rating systems and energy efficient mortgages.

RESNET has adopted the Mortgage Industry National Home Energy Rating Standards. The standards set the national procedures for home energy ratings. The standards focus on three areas, Rating Program Administration, Rater Training and Certification, and Technical Guidelines

www.natresnet.org

WHAT YOU CAN EXPECT

The HERS Rating has a very important role to play in helping us achieve more sustainable buildings by providing energy predictions, and recommendations with sophisticated standardised software that is used to set minimum standards as required by strict state and federal regulations.

There are three types HERS Rating software:

1. **New Construction:** predicts the performance at the design stage, such as homes to be constructed or under construction
2. **Existing Buildings:** measures energy performance of existing buildings
3. **HVAC:** HVAC Testing and Duct Sealing

Aspects of building performance that can be rated include:

- **Thermal performance** of the building envelope and air delivery system (ductwork) when tested by proper equipment and procedures
- **Individual components** Performance of such as windows, lighting, insulation, etc
- **Appliances** Energy efficiency of
- **Water efficiency of appliances** and fixtures such as washing machines and showers.
- **Whole Building Energy saving** recommendations

What You Cannot Expect

**You cannot expect or guarantee the existing buildings HERS Rating
to be 100% Actuate**

The HERS Rating is based on many accurate state and federal computations and formulas. Some computations are based on “average variables” that cannot be accurately predicted or calculated:

The “WHAT IF’s”:

Occupant Behaviour

Weather Conditions

Number of Occupants

Last Owners Utility Cost

Typical HERS Rating Example

Existing Condition	Recommended Improvement	Expected Yearly Savings	Estimate Installed Cost	Expected Useful Life	Present Value
Heating AFUE .55	Upgrade to AFUE .95	\$452	\$3,599	20	\$4,662
Cooling SEER 10	Upgrade to SEER 13	\$343	\$3,332	15	\$4,627
Air Delivery System	Perform leak test to 85.0%	\$428	\$1,086	30	\$4,055
Attic Insulation R-10	Install R-38	\$306	\$995	30	\$3,560
Windows Single Pane	Energy Star Windows Dual Pane Low E	\$233	\$7,580	25	\$2,831
Whole House Fan	Install Whole House Fan	\$206	\$995	15	\$1,114
Infiltration	Reduce Air Infiltration & Leaks ELA:61	\$197	\$154	30	\$3,057

Diagnostic Tools to Measure A Homes Energy Performance

New Energy Regulations in California

Beginning October 1st, 2005 HVAC contractors in California are required to perform an air tightness test on existing duct systems whenever a residential air conditioning or heating system is replaced.

Tested duct systems must be brought down to a leakage rate of less than 15% of total system airflow as part of the change-out work.

The new California regulations (which are part of the state's Title 24 Energy Code) appear to be the first time that a state building code has required testing and sealing of existing duct systems. In order to receive a final on HVAC permits, a Certified HERS Report is required.

**"A typical California duct system wastes about 40%
of the power it consumes on a hot day."**

About two-thirds of those losses slip out duct leaks or poorly insulated ducts.

Duct Blaster

A Duct Blaster test used to determine ductwork air leakage

The Duct Blaster pressurizes the ductwork

Presser levels are achievable with a moderate sealing effort

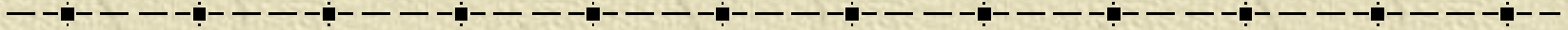
Includes examining total system airflow, refrigerant charge, airflow delivery to rooms and proper operation of vented combustion appliances.

Certified HERS Report is required when installing a new central heat and air system

And

Blower Door – Find leakage and check air transfer in the envelope

Energy Efficiency Benefits:



Real Estate Professionals

(Brokers – Bankers – Management Co.)

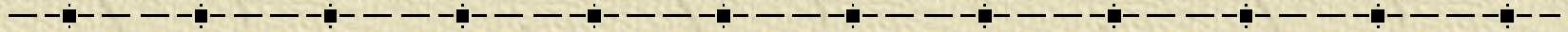
Why Should Real Estate Professionals be Concerned with
Financing Energy Efficiency?

- Green Real Estate professional promote energy efficiency and renewables to Increase your market share while supporting your community
- Environment -The average American household produces 9,900 pounds of carbon dioxide a year, which means that the energy we use in our homes is responsible for more greenhouse emissions than driving our cars.
- Lessens the chance of Blackouts or Brownouts
- Upgrading a Home upgrades the community
- Creates a healthier stronger economy
- Lessen our dependence on foreign oil

Lenders:

-
- **Qualify More Buyers:** Energy Efficient Mortgages help people qualify to purchase energy efficient home than could qualify for the same house if it were not energy efficient. With Fannie Mae the energy savings is added to income.
 - **Lower Utility Bills** Can Lead To Lower Client Defaults: - more financial resources to put towards their mortgage. This should result in fewer defaults
 - **No Great Increase in Paper Work:** Under the new Fannie Mae, FHA, and Homebuyer Program guidelines, the underwriting process is reasonable and straightforward.
 - **Larger & More Profitable Loans:** Energy Efficient Mortgage Program improvements add to the loan. When underwriting energy efficient mortgages, lenders may be able to exceed the statutory federal loan limits up to the amount of the energy improvements.
 - **Identify with those realtors,** local builders, and energy improvement contractors who are dedicated to energy efficient housing. These allies will bring you new business if they know that you are willing to work with them on promoting energy efficiency.

Contractors



- A Symbiotic Relationship with Raters, Buyers and Lenders
- Bid parameters clearly spelled out (firm bids)
- Work Scheduled Close of Escrow (then EEM and K funds are set-aside)
- Material Draws (some cases using 203 Streamline K)
- All jobs require permitting (FHA required)
- The funds are released from Escrow when “Notice of Completion” is signed (the money is in the bank waiting for you)
- Consistent Business and It’s Green
- No advertising expense (A good job will keep us calling you)

Sellers:

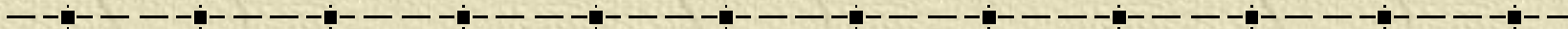
- Sell the home more quickly
- Make the house affordable to more people
- Attract attention in a competitive market
- Protects Sellers from future litigation

*Resource: HUD website

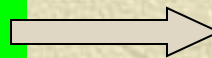
<http://www.hud.gov/offices/hsg/sfh/eem/eemhog96.cfm>



Financing Energy Improvements



Energy Efficient Mortgage



The Go Green Area

In-Store or on Credit Card

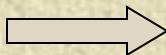
Equity Line of Credit

Utility Financing (pos)

Stimulus Funds (until gone)

AB 811 (until gone)

The Gray Area



Energy Efficient Mortgage

Who can get these programs?

Buyers or Refinancing that are qualified by FHA/HUD Lenders (if they want it)

You must ask if they do:

1. FHA/HUD insured mortgages
2. the EEM (Weatherization is an add-on to EEM)
3. the 203 Streamline K
4. Solar (using the 203 Streamline K)

Banks and Lenders to check;

B of A, Well Fargo, Comstock Mortgage, American Home Equity, Sierra Pacific, UNIWEST MTG, Stearns Lending, Security National Mortgage, Prospect Mortgage, Plaza Home Mortgage, Guild Mortgage

FHA 203 STREAMLINE (K)

LIMITED REPAIR PROGRAM

WHO CAN GET A STREAMLINE (K) LOAN?

Purchase or Re-finance-Owner Occupants - **No Investors**

1 – 4 Units-Existing Residential - Condos **((not co-ops))** - Manufactured homes - Mixed-Use Properties

PROGRAM LOAN LIMITS

Up to \$35,000 with Contractor Firm & Fixed Bid Proposal

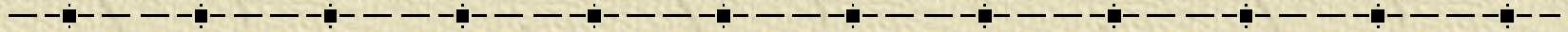
QUALIFYING

Down Payment and Income Qualifying required

Streamline (k) “may not” exceed loan limits –SD \$697,500

The total of the energy improvements is layered into the base loan amount

EEM/Weatherization (can not exceed cap, requires qualifying and additional down)



Energy-saving improvements may be included:

- 1) Thermostats.
- 2) Insulation wrap for water heaters.
- 3) Insulation of ducts and pipes in unheated spaces of heating/cooling systems.
- 4) Attic insulation.
- 5) Insulation for floors and foundation walls.
- 6) Installation of weather stripping/caulking.
- 7) Installation of storm windows/doors.

\$2,000 or less requires a contract for the work to be done by firm bid, no inspection

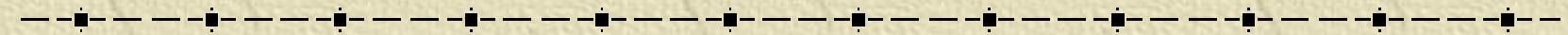
\$2,001 to \$3,500 determination by a HUD review appraiser, staff appraiser, or Direct Endorsement Mortgagee or Underwriter.

\$3,501 or more subject to an inspection made by a HUD-approved fee inspector or Direct Endorsement staff appraiser.

The Procedure for EEM's and Solar

-
1. Buyer **decides to buy** a home insured by **FHA** (under the limit of \$697,500)
 2. Lender **qualifies the buyers** for loan limits leaving room for (K)
 3. Lender and/or Buyer **recommends EEM and Renewables**
 4. Buyer **identifies property** buyer wants
 5. Rater does a **HERS Rating**
 6. Contractors are invited to make **firm bids**
 7. **Cash-flow** is calculated based on bids and HERS Rating
 8. **Buyer decides** on improvements buyer wants done
 9. **Lender approves** additional funds required above the sales price for EEM
 10. **Lender approves** additional funds for 203 K and Weatherization
 11. **Funds for improvements are set aside** in a separate Escrow
 12. **Escrow closes** 30-60-90 days later – funds are confirmed in EEM Escrow
 13. Contractors are called in to **do the work**
 14. **Rater or Lender verifies** work is done and satisfactory
 15. **Funds are released** to pay contractors

Qualifying and Limits



	examples
•<u>San Diego FHA loan Cap \$697,500</u> (loan limit)	\$697,500
Down payment now 5%	+ EEM <u>\$12,000</u>
•<u>EEM Cap 5% of Sales Price</u>	new loan amt. = <u>\$709,500</u>
(can exceed Loan Cap & no Additional Qualifying)	
	\$697,500
•<u>FHA Streamline 203 K Cap \$35,000</u> - - (solar OK here)	- <u>\$35,000</u>
(requires income qualifying and must be under loan limit)	\$662,500
OR	<u>or</u>
•<u>Weatherization</u>	<u>\$697,500</u>
	- <u>\$10,000</u>
(requires income qualifying and must be under loan limit))	\$687,500

Stimulus funds could be used to:

- Subsidize the HERS Ratings - A typical residential Rating may cost \$350.00. A portion of that Rating could be subsidized with Stimulus Funds at Time of Sale.
- Interest buy-down would be an extremely beneficial incentive for the buyer to do EE and solar in the mortgage.
- Loan guarantees for EE and solar to be financed on certain residential and multifamily projects should also be considered.



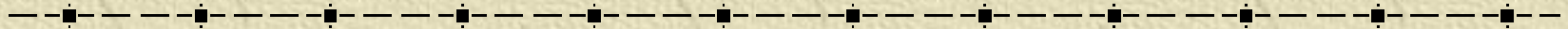
Rebates:

Clothes washers	\$100
Refrigerators	\$75
Room <u>air conditioners,</u>	\$50

The rebates would be in addition to existing rebates offered by [California](#) utilities or appliance manufacturers. For example, if you buy an energy-efficient refrigerator that qualifies for a \$100 rebate from the [Sacramento Municipal Utility District](#), you'd get that on top of the federal rebate.

To qualify for rebates, appliances must bear the **Energy Star** label and be certified to the [Energy Commission](#) as meeting all state and **federal efficiency standards**.

Tax Incentives



To qualify for the \$8,000 tax credit you must be a first time home buyer.

A \$6,500 tax credit if you are buying a new home and have lived in your current residence for five out of the past eight years.

A small tax credit may be available for some home energy saving improvements such as Energy Star appliances and fixtures. If you add insulation or buy a high efficiency furnace, you may be entitled to a tax credit on part of the purchase.

According to the [IRS](#), you can obtain a tax credit of up to 30 percent of the cost of certain energy-efficient appliances or improvements for 2010.

High-efficiency heat pumps

Air conditioners

Water heaters

Energy-efficient windows and doors

Insulation materials

Certain roofs

Solar energy panels

Wind energy projects

Some geothermal heat pumps may qualify you for the credit without a dollar limit.

In each instance, make sure beforehand that the work you plan to do actually qualifies for the tax credit. Don't forget to keep all of your paperwork as evidence that you purchased the items and/or made the improvements to your home. Check with your tax expert.

What needs to be done?

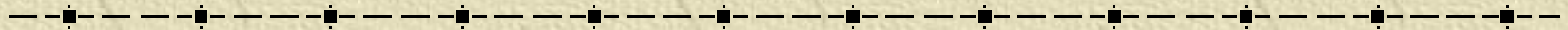
- Lenders and Underwriters need **education** on the HUD/FHA EEM, 203 Streamline K, Weatherization and Solar Programs in front of us.
- Brokers and Realtors need **education** on programs to show the value of green homes. We will have a better understanding of how it will benefit the quality of life, reduce our dependence on foreign resources, save money and create local jobs.
- The home buying public needs **education** about the availability of these Federal Insured Programs

**The wheels are in place they are just not turning yet.
The spokes are being created now.**

We ask that you support the

HUD/FHA programs and the HERS Ratings

Thank you – Dan Perkins



Program must be cost neutral to the City

A bank in Canada has approved a 20 million 20 year bond to do the first project

7% interest rate

City of San Diego is an Independent District

The State is talking about a State Wide District

City will hire Special Council to form District in Feb

Goal is 800 to 1,000 homes for the 20,000,000 or about 20,000 per home

Owner hires a Rater

Owner decides what EE measures to take to achieve

minimum 10% HERS improvement and get \$1,000 + 500 for Rating

or 20% HERS improvement and get \$3,000 + \$500 for Rating

Owner hires a contractor who does the EE work

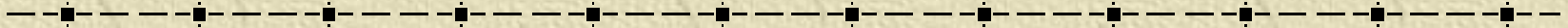
CCSE reviews Rating and inspects work done for approval

Now qualified to put solar on and create a tax bill for 20 years

Minimum system \$5,000 – Maximum \$50,000

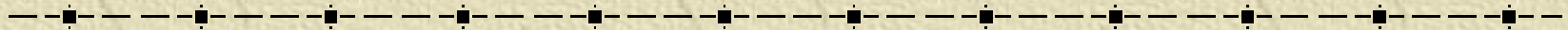
Stimulus Funds

(City of San Diego Wish List)



- | | |
|---|--------------------|
| 1. Residential energy efficiency and water conservation for the economically disadvantaged and pre 1978 homes for | \$3,000,000 |
| Audits | |
| Education | |
| Upgrades | |
| 2.City Street Light Retrofits (underway for next 4 to 5 years) | \$2,000,000 |
| 3. Residential energy efficiency and water conservation that includes; | \$1,500,000 |
| Audits | |
| Education | |
| Upgrades | |
| 4. Revolving Loan Funds for Municipal Operations and Energy Efficiency Retrofits, water conservation , audits and education. | \$2,500,000 |
| 5. Energy Efficiency and water conservation Programs for buildings Owned by the City of San Diego and occupied by non-profits. | \$2,500,000 |
| Audits | |
| Education | |
| Upgrades | |

Tom Blair Report on 12.5 million Stimulus Funds 1-12-10 at SEAB



The five areas requested are still good

- | | |
|---|--------------------|
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Owned by the City of San Diego and occupied by non-profits. | \$2,500,000 |

Going to 50% of Stimulus funds about mid March

RFP's will be going out

All money allocated by 2011

Lighting Retrofit will be 19 million – better lighting - less expensive - last 5 X's longer

Oct 09 - CPUC offers up 3.1 Billion for IOU's to do EE in California 2010 thru 2012

Goals for CalSPREE:

15,000 to 18,000 new jobs

Save 7,000 Gigawatt hours

Reduce load by 1,500 megawatts

Save 150 million metric therms

Offset 3 – 500 Megawatt Power Plants

Avoid 3 million metric tons of greenhouse gas

Roughly equal to removing 600,000 cars each year

Reduce energy consumption by 20% for 130,000 homes by end 2012

175 million for innovative Net Zero Energy Homes

260 million for 64 cities/counties to retrofit buildings

100 million will go to education

Commissioner Grueneich who is responsible for Energy Efficiency at the CPUC said, "This decision implements the goals of the California Long-Term Energy Efficiency Programs to make energy efficiency a way of life in California and demonstrate California's continued leadership roll in the field of energy efficiency."

The decision includes the new **C**alifornia **S**tatewide **P**rogram for **R**esidential **E**nergy **E**fficiency (CalSPREE)

California Public Utilities Commission www.cpuc.ca.gov

IOU's

SDG&E

PG&E

SCE

So Cal Gas