

# PG&E Multifamily New Homes Program (CMFNH)

RESNET Conference 2007

**Heschong Mahone Group, Inc**



CALIFORNIA MULTIFAMILY  
NEW HOMES PROGRAM



# CMFNH Program Overview



- PG&E 2006-08 New Construction Multifamily Program implemented by HMG
- Similar to previous RNC MF PG&E offering plus
  - Design assistance
  - HERS Rater Incentives
  - Energy Consultant Incentives
- Two program components for both High-rise and Low-rise
  - Performance: Exceed T-24 by 15% for Multiple Incentives
  - Appliances: Individual Measure Incentives



# Program Benefits



- Financial Incentives: At least 15% above T-24
  - \$150-\$200/unit Developer Incentive
  - **\$60/unit HERS Rater Incentive**
  - \$50/unit Energy Consultant Incentive
  - Appliance Incentives
- Design Assistance
  - Technical Support
- Qualify for other Programs
  - New Solar Homes Program (CEC)
  - ENERGY STAR® New Homes (EPA)
  - LEED for Homes (USGBC)



# Incentive Summary

CA Multifamily New Homes Incentive Description	Incentive Amount
Developer Incentive	\$150 per unit coastal regions (Climate Zones 1-7) \$200 per unit inland regions (Climate Zones 8-16)
Energy Consultant Incentive	\$50 per unit (\$10,000 per project cap)
<b>HERS Rater Incentive</b>	<b>\$60 per unit (\$12,000 per project cap)</b>
ENERGY STAR® Dishwashers	\$30 per Tier 1 equipment \$50 per Tier 2 equipment
ENERGY STAR® Clothes Washers	\$35 per Tier 1 equipment \$75 per Tier 2 equipment
ENERGY STAR® Refrigerators	\$50 per unit
Natural Gas Clothes Dryers	\$50 per unit
Lighting: High Efficacy Interior Hardwired Fixtures w/ controls	\$10 per fixture



# CMFNH Performance Program Requirements

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- New construction (3 or more dwelling units/bldg)
- Exceed 2005 Title 24 part 6 by at least 15%
- Positive electric energy savings
- Served by PG&E (gas or electric)
- Passes plan review and viability checks
- Third-party (HERS rater) verification
- Completion within 30 months of signing the application



# Performance Approach

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- T-24 Performance Approach considers
  - **Building Envelope:**
    - Orientation, Insulation, Windows, Assemblies
  - **HVAC:**
    - Heating and Cooling equipment and distribution
  - **DHW:**
    - Central and individual water heating equipment & distribution
- CEC-certified software programs must demonstrate at least 15% > T-24 and positive electric energy savings
  - **EnergyPro (Low rise and High rise)**
  - **MICROPAS (Low rise only)**
- Applies to dwelling units only, not common areas or non-residential portion of mixed use



# At least 15% > 2005 code

CERTIFICATE OF COMPLIANCE: RESIDENTIAL COMPUTER METHOD

CF-1R Page 1

MICROPAS7 ENERGY USE SUMMARY

Energy Use (kTDV/sf-yr)	Standard Design	Proposed Design	Compliance Margin
Space Heating.....	4.38	5.12	-0.74
Space Cooling.....	2.08	2.62	-0.54
Water Heating.....	23.11	16.61	6.50
Total	29.57	24.35	5.22

\*\*\* Building complies with Computer Performance \*\*\*  
 \*\*\* HERS Verification Required for Compliance \*\*\*

$$5.22/29.57 = 17.65\%$$

- Compliance Margin / Standard Design
- Negative Electric Energy: Does not comply



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# High-Rise Title 24 PERF-1: Code Compliance vs Program Compliance

## PERFORMANCE CERTIFICATE OF COMPLIANCE Part 2 of 3 PERF-1

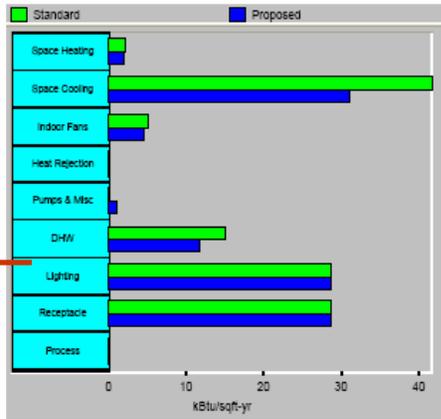
PROJECT NAME VILLA SIENA BUILDING-10 DATE 3/23/2006

ENERGY COMPONENT	Standard Design	Proposed Design	Compliance Margin
Space Heating	2.02	1.84	0.18
Space Cooling	41.51	31.07	10.45
Indoor Fans	5.04	4.46	0.58
Heat Rejection	0.00	0.00	0.00
Pumps & Misc.	0.00	0.86	-0.86
Domestic Hot Water	15.05	11.67	3.38
Lighting	63.62	28.44	13.73
Receptacle	28.44	28.44	0.00
Process	0.00	0.00	0.00
<b>TOTALS:</b>	<b>120.50</b>	<b>106.77</b>	<b>13.73</b>

Percent better than Standard: 11.4% ( 11.4% excluding process)

**BUILDING COMPLIES**

GENERAL INFORMATION

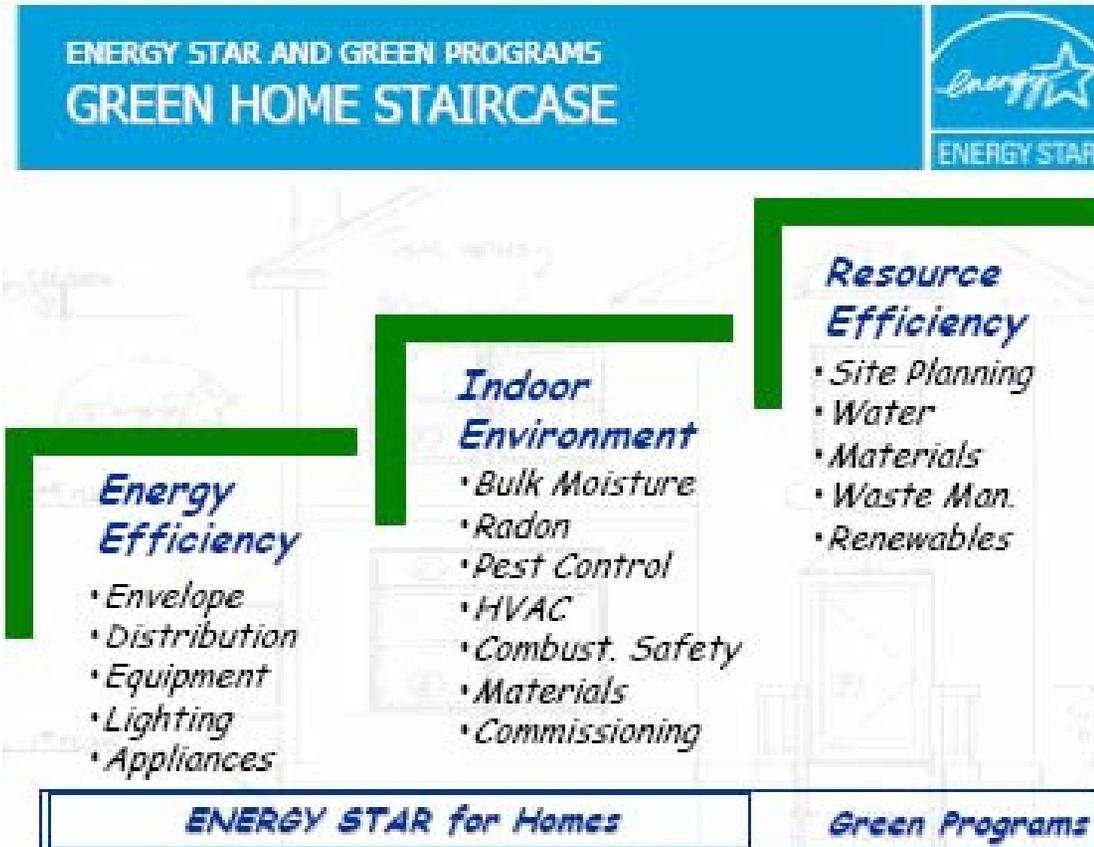


- Subtract  
→ Lighting  
→ Receptacle
- Divide  
→ Margin/Standard

$$13.73/63.62 = 21.58\%$$



# Green Building Programs and Energy Efficiency



- **Energy Efficiency = Component of Green Building:**
  - LEED New Homes
  - BIG Green Points
  - Enterprise Green Communities
  - NAHB Green Builder
- **Financial Incentives**
  - No Double Dipping
  - Off-set costs of green programs
  - TCAC Funding
  - New Solar Homes Partnership
  - EAct 2005 Tax Credits/Deductions

Source: ICF Consulting, AESP Web cast July 2005



# California Multifamily New Homes Program: HMG Contact

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