



Energy News and Tech Tips

CMFNH Project of the Quarter



Photo courtesy: Mutual Housing California

Name: **Mutual Housing at Spring Lake**

City: **Woodland**

Percent above 2008 Title 24: **35%**

Developer: **Mutual Housing California**

HERS Rater: **Davis Energy Group**

Architect: **Kuchman Architects PC**

Energy Consultant: **Redwood Energy**

Energy Efficiency & Sustainable Measures:

- High efficacy LED lighting
- Heat pump HVAC (11 HSPF) and domestic hot water (2.4 EF) systems
- Solar photovoltaic array expected to offset 100% of electricity use at the site (electric only project)
- Tenant education meters provide feedback about energy use in relation to solar production
- R-38 attic insulation, radiant barrier, and cool roof
- HERS measures: low leakage ducts, ducts in conditioned space, quality insulation inspection
- R-8 duct insulation
- Efficient windows: 0.30 U-Value, 0.28 SHGC

For more information, see [this article](#) in Scientific American.

*The project exceeding Title 24 by the highest percentage and completing within the current quarter is the Project of the Quarter.

Tech Tip: Advanced Wall Design

The 2016 Title 24 energy standards, expected to go into effect in 2017, include an update to the standard wall assembly for low-rise multifamily projects. This tech tip explains the value of a well-designed building envelope and methods to meet the impending code update.

High performance walls minimize thermal bridging and reduce air leakage. They help to maintain air temperature within conditioned space, which reduces HVAC system demands and building energy use. High performance walls may also increase your CMFNH incentive by \$25-\$200 per unit, depending on climate zone and building type.

WAYS TO ACHIEVE HIGH PERFORMANCE WALLS

The most common current high performance wall design options include 2x6 framing, either 16 inch on center or 24 inch on center, with a combination of cavity insulation and external continuous insulation. Advanced options include double walls, staggered stud walls, structural insulated panels (SIP), and insulating concrete forms (ICF). The table below explores these options in greater detail.

U-factor	Framing	Stud Spacing	Cavity Insulation	Exterior Insulation	Cavity Insulation Type
0.050	2x6	24" OC	R-19	R-4 (1")	Low density fiberglass batt
0.049	2x6	16" OC	R-21	R-4 (1")	High density batt or BIB
0.048	2x6	16" OC	R-19	R-6 (1.25")	Low density fiberglass batt
0.049	2x4	16" OC	R-15	R-8 (2")	High density batt

Project Completions

Congratulations to the following developers who recently completed construction.

Developer	% Above 2008 Title 24
DR Horton	34%
Mutual Housing California	35%
St. Anton Partners	29%
Urban Housing Group	33%
ROEM Development	24%
ROEM Development	25%

Education Opportunities

2016 CODE READINESS WEBINAR: ADVANCED WALL CONSTRUCTION

October 8 | 12:00 – 1:00 PM | [REGISTER](#)

The upcoming 2016 Title 24 residential (single family and low-rise multifamily) energy code will increase wall insulation requirements to an assembly U-Factor of 0.051. Join us to learn about assembly options, and discuss the challenges of constructability, moisture mitigation, and structural support.

BUILDING ENERGY SCIENCE TRAINING

Join PG&E for a series of one day classes offered over a one week period which will provide HVAC Contractors and HERS Raters with hands-on training in the use of Blower Doors, Duct Testers, Flow Hoods, Flow Grids and other measurement tools required for current code compliance inspections as performed by a HERS Rater.

Visit the [PG&E Energy Classes website](#) to register.

CMFNH 2015 Program Deadline

TELL US ABOUT PROJECTS IN YOUR PIPELINE

[SUBMIT A PROJECT INTEREST FORM](#)

Please complete a [Project Interest Form](#) as soon as possible so that you have sufficient time to submit your application package (including energy model) by **October 15, 2015**. A program representative will follow up to discuss your project and explain the participation process.

Please refer to the [2015 Program Handbook](#) for a complete list of entry criteria and the program incentives.

Program Partner:

PG&E CSI Thermal Program

PROGRAM INCENTIVES

The California Solar Initiative (CSI) Thermal program in PG&E territory provides incentives up to \$800,000* to eligible multifamily customers who install a solar water heating system.**

The incentive amount is based on the size and performance of the system—how much natural gas (therms) is saved. The more water you heat with the sun, the bigger your rebate. This applies to pool heating, as well. Contractors that have been certified in the CSI-Thermal program can help determine incentive amounts and submit the rebate applications.

You may also qualify for a 30 percent federal tax credit (minus the rebate amount) for the installed cost of the system. After 2016, the federal tax credit will be reduced to 10 percent. Consult your personal tax advisor for more information.



STEPS TO GET STARTED

Use PG&E's [contractor search tool](#) to find a licensed contractor. PG&E recommends getting at least two to three estimates to compare costs, system types and savings from different contractors.

There is no obligation and you can take advantage of PG&E's free [Solar Water Heating Informational Kit](#) and the [CSI Thermal website](#) to help you make an informed decision.

**Final rebate amount will be based on the estimated savings as calculated by your contractor.*

***Must currently heat water with a natural gas water heater. Customers who heat their water with electricity or propane are not eligible for these incentives.*