

CALIFORNIA ENERGY COMMISSION

BLUEPRINT

EFFICIENCY AND RENEWABLE ENERGY DIVISION

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New Edition of the Home Energy Rating System Booklet

The California Energy Commission, which administers the statewide Home Energy Rating System (HERS) Program, has published a new edition of the HERS Booklet: *What Is Your Home Energy Rating?* The booklet is a colorful and informative publication designed to:

- Describe Whole-House Home Energy Rating services and their benefits, and how to find a certified professional HERS Rater.
- Provide home buyers, sellers, brokers, and appraisers with information about the opportunity to invest in energy efficiency improvements at the time of sale.
- Explain the desirability of obtaining utility bills from the seller.
- Identify the potential of adding sales appeal and value to your home through energy efficiency upgrades.
- Offer options for financing energy efficiency improvements and explain where to find tax credit and rebate information.

To learn more about the California HERS Program, visit www.energy.ca.gov/HERS and click on the “New HERS Booklet” link to view and download the publication.

The California ENERGY COMMISSION

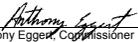
What is your Home ENERGY RATING?

know before you buy or sell

- Lower your energy bills
- Enjoy a safer, more comfortable and durable home
- Reduce your impact on the environment
- Increase your home's sales appeal and appraisal value

New Duct Sealing Letter to Homeowners

The California Energy Commission has released a letter to homeowners regarding the importance of duct sealing for homes in climate zones 2 and 9-16. The letter also points out that heating, ventilating, and air-conditioning (HVAC) work should be carried out by licensed HVAC contractors and that a permit is required for this type of work. The letter may be obtained by printing [Page 3 of this Blueprint](#), or by visiting <http://www.energy.ca.gov/title24/2008standards/changeout/>.

STATE OF CALIFORNIA – NATURAL RESOURCES AGENCY	ARNOLD SCHWARZENEGGER, Governor
CALIFORNIA ENERGY COMMISSION 1516 NINTH STREET SACRAMENTO, CA 95814-5512 www.energy.ca.gov	
July 6, 2010	
LETTER TO HOMEOWNERS:	
SAVE ENERGY AND MONEY – HAVE YOUR DUCTS SEALED	
<p>The largest single energy user in California homes is the central air conditioning and heating system. If this system is not installed properly, it not only wastes energy, but money as well. To prevent this, do two simple things when installing or replacing your central air conditioning or heating system.</p>	
SEAL YOUR SYSTEM DUCTING	
<p>Most homes have a duct system that delivers cooled or heated air from the air conditioning or heating unit to the home's living spaces. The average duct system leaks about 30 percent of the conditioned air into the attic or crawl space. Leaky ducts waste energy and make energy bills higher than they should be. Properly sealed ducts will make your home more comfortable and save you money.</p>	
<p>The 2008 <i>Building Energy Efficiency Standards</i> require testing of ducts after a central air conditioning or heating system is installed or replaced in most existing homes.* Duct systems that leak 15 percent or more must be sealed by the installing contractor. The work of contractors is checked by third-party field verifiers (more commonly referred to as Home Energy Rating System [HERS] raters) to ensure that ducts have been properly sealed. Before your contractor begins work, you will be given the option to require that your duct sealing is verified by a HERS rater. If you do not choose this option, your home's ducts will be included in a random sample for verification. If your duct system is checked and the HERS rater finds that it leaks 15 percent or more, your contractor will need to return and properly seal your ducts.</p>	
<p>Note that duct sealing is not required for systems having less than 40 feet of ductwork in unconditioned spaces like attics, garages, crawlspaces, basements, or outside the building, or if the ducts were constructed, insulated, or sealed with asbestos.</p>	
MAKE SURE YOUR CONTRACTOR GETS A PERMIT	
<p>Please keep in mind that any contractor failing to obtain a required permit is violating the law and exposing you to additional cost and liability. Real estate law requires disclosing to potential buyers and appraisers whether required permits for work done on a home were obtained. If work was done without a required permit, you may be required to bring your home into compliance with current code requirements before selling it, in addition to possibly paying penalty permit fees and fines. Additionally, your homeowner's insurance policy may be voided if it is found that work was done without a required permit.</p>	
<p>For more information, please call the Energy Standards Hotline at (800) 772-3300.</p>	
 Anthony Egger, Commissioner Presiding Member Efficiency Committee	 Jeffrey D. Byron, Commissioner Associate Member Efficiency Committee
<p>* Under the 2008 <i>Building Energy Efficiency Standards</i>, duct testing is required when you have a central air conditioner or furnace installed or replaced in climate zones 2 and 9-16. Please visit www.energy.ca.gov/maps/building_climate_zones.html or call the Energy Standards Hotline to find out which climate zone your home is in.</p>	

Refrigerant Charge Verification: 70°F Return Air Requirement

Maintaining return air temperature above 70°F while performing refrigerant charge verification when the outside temperature is between 55 and 65°F has been a requirement of the *Building Energy Efficiency Standards* since 2001. This requirement can be met by using the installed furnace to preheat the dwelling air before conducting the refrigerant charge test and/or applying supplemental heating to the airflow during the refrigerant charge test by placing portable electric resistance heating devices near the return air grille. A combination of preheating and supplemental heating will, in most cases, be used to keep the temperature of the return air above 70°F long enough to perform a valid refrigerant charge verification.

A letter explaining this procedure in more detail is at <http://www.energy.ca.gov/title24/2008standards/changeout/>.

Refrigerant Charge Verification: Requirements for Non-Working Air Conditioning

Section 152(b)1F of the 2008 *Building Energy Efficiency Standards* states that a refrigerant charge measurement is required for low-rise residential buildings when “a space-conditioning system is altered by the installation or replacement of the air handler, outdoor condensing unit of a split system air conditioner or heat pump, cooling or heating coil, or the furnace heat exchanger.” The refrigerant charge measurement must be completed in accordance with Reference Residential Appendix RA3 in Climate Zones 2 and 8-15, even when only the heating equipment is being altered in a split space-conditioning system.

In some instances, however, the air-conditioning equipment may not be functional at the time the heating equipment is altered or replaced on a split system, making it impossible to measure the refrigerant charge. In this case, a refrigerant charge measurement is not required *only if the building inspector determines that the air-conditioning equipment of the altered split system is nonfunctional*. A refrigerant charge measurement will be required once the air-conditioning equipment is working.

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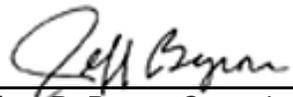
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Attention Energy Professionals: The California Energy Commission is Hiring!

The California Energy Commission is testing and hiring for several professional level positions. Please visit the Energy Commission's careers page at <http://www.energy.ca.gov/careers/index.html> to find out about the exam and hiring process and view openings.

Building Energy Efficiency Standards Training

Please visit the Energy Commission's **Online Learning Center** at www.title24learning.com

For training offered by utilities and others, please visit the following websites:

Pacific Gas and Electric Company
www.pge.com/mybusiness/edusafety/training/pec/classes/

Southern California Gas Company
<http://seminars.socalgas.com>

San Diego Gas & Electric Company
<http://seminars.sdge.com>

Southern California Edison
www.sce.com/b-sb/energy-centers/workshops-classes.htm

Sacramento Municipal Utility District
www.smud.org/en/education-safety/

California Building Officials
www.calbo.org

California Association of Building Energy Consultants
http://cabec.org/cepe2008standardsinfo_2010.php



Flex Your Power News
www.fypower.org/news



www.gosolarcalifornia.org

Arnold Schwarzenegger
Governor



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Special thanks to:
Gary Flamm, Helen Lam, Sam Lerman, Jeff Miller, Chris Olvera, Vanessa Byrd, and Carol Robinson for their help in creating this edition of the Blueprint.

Need Help?
Energy Standards Hotline
(800) 772-3300 (toll-free in California),