

# ENERGY RETROFIT PROGRAM ASSESSMENT



Achieving improved energy performance means effectively bundling your home up against the elements, keeping it as cool as possible in the summer and warm as possible in the winter. This keeps your home comfortable, energy efficient and less expensive to run.

The best practice to ensuring your home is performing at optimal levels is to perform five specific tests. These will reveal problem areas, so they can be fixed.

## Here are the 5 tests:



### Duct Leakage Testing

The process of checking your heating and air conditioning vents and duct work for leaks.

Inefficient, leaking ducts causes up to 40% of the warm or cool air to escape the home to the attic or crawl space. The test is performed by sealing off all the air outlets and installing a special fan to the duct work to determine the leakage.

After retrofit, under 10% leakage is an acceptable post-test result.



### Whole House Air Testing

It's true all homes leak. However, as homes age and materials break down this can become very energy inefficient and causes higher utility bills.

This test is performed by placing a fan outside a doorway and monitoring how much air comes into the home. A smoke stick is used to identify where the leaks are present.

After retrofit, it is ideal to see a 30% reduction in leakage.



### Attic Insulation Testing

A number of factors contribute to the ineffectiveness of insulation. This test will measure the R value of the homes insulation.

R value = the capacity on an insulating material to resist heat flow. Old insulation measures a R-11 or less and has no energy value due to build of dirt and/or animal waste.

Simply, the higher R value, the better the insulation. With retrofit, an R-44 insulation will be installed.



### Air Conditioning Refrigeration Charge Verification Testing

Air conditioning units contain refrigerant (Freon) that allows the unit to cool your home. Over time, the refrigerant levels can change causing the air conditioning unit to work harder and less efficient to maintain the set temperature of the home. The charge verification test will determine if the unit is charged correctly. In the retrofit, corrections will be made to be sure the charge amount is accurate according to the specific unit's specifications.



### Air Flow Improvement Testing

Air conditioning and heating units work best when proper airflow is allowed in and out of the return grille (location of the filter).

It is possible the return grille on an aged, existing unit is too small.

The retrofit could include a larger return grille or increasing the duct attached to the grille for better performance.



# ENERGY RETROFIT PROGRAM VENDORS



Valley Duct Testing will test:



Duct  
Leakage



Whole House  
Air Testing



Attic  
Insulation



Air Conditioning  
Refrigeration  
Charge



Air  
Flow

Upon completion, the tester will recommend improvements and perform the alterations if approved by the buyer.

## Valley Duct Testing

4321 Anthony Court, Suite 1  
Rocklin, CA 95677  
(916) 624-2092  
John Flores

Price for test: \$495

Call Brianna at 916-624-2092  
or email her at

[Brianna@valleyducttesting.com](mailto:Brianna@valleyducttesting.com)

and tell her that you purchased a home in Bretton Woods  
and that you would like an inspection of your home.

# Valley Duct Testing

## SAMPLE Home Energy Evaluation

Date of Evaluation:		How many story home:	
Home Owner:		Homeowner Phone Number:	
Address:		City & Zip:	
Sq. Footage of Home:		Year Built:	
Tonnage of HVAC Equip:		HERS Rater:	

Test Completed	Description	Initial Results	Final Target	Recommendations	Cost
Duct Leakage	Leakage of the Duct System				\$
Whole House Infiltration	Total Home Air Leakage				
Attic Insulation	Verify Condition of Insulation				
AC Refrigeration Charge	Make sure Charge is correct				
Air Flow	Make sure Return is correct size				

Results and recommendations are made by a Certified HERS Rater from Valley Duct Testing

Comments: \_\_\_\_\_