

# TOTAL REMODELING

Total Guide to  
*An Energy Efficient Home*



# 6 angles to cutting costs and creating a comfortable home

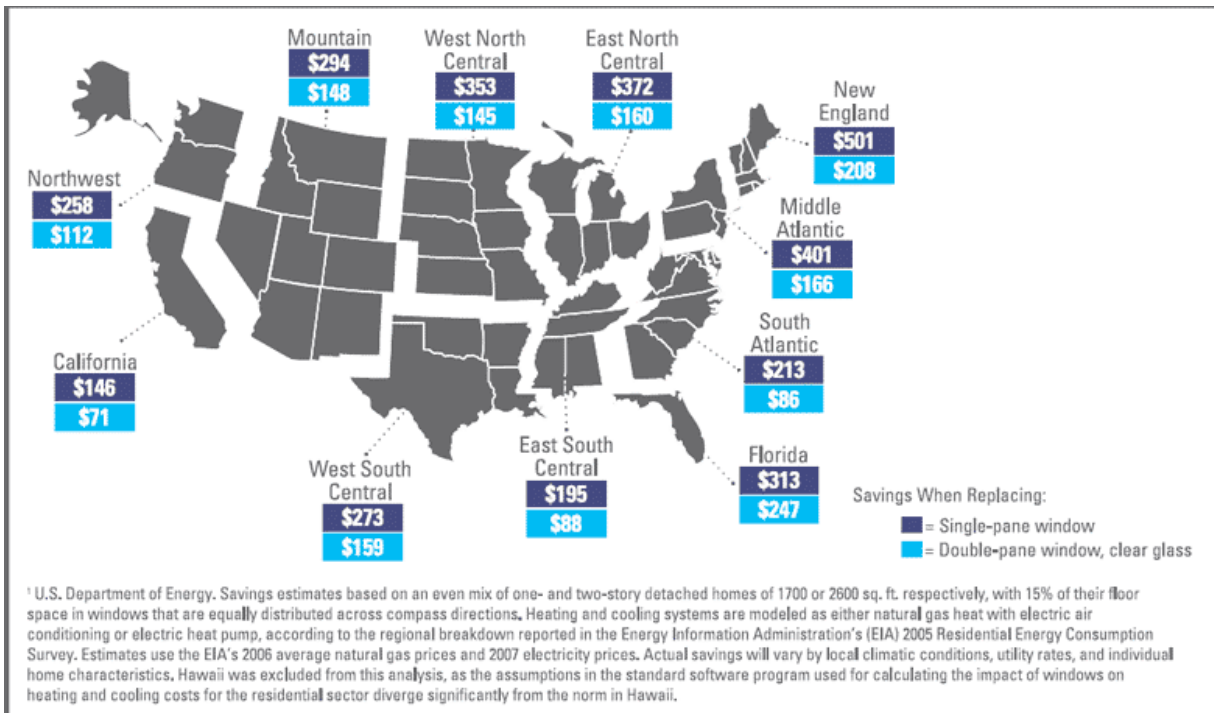
Any quality home remodeling or renovation project will increase your real estate value. The smartest projects are ones that start saving you money when the job is done. With the right products, materials, and craftsmanship, you can save thousands on your energy bills!

TOTAL Companies go beyond your expectations, outfitting your home with the leading technology of the industry to be more efficient than ever, and create the appearance you imagined. Explore five key areas in which you can increase the energy efficiency of your home with TOTAL Companies.

## #1 Window and Door Replacements

New doors or windows are very visible solutions to reducing energy expenses in your home. When you have TOTAL install your new windows or doors, you'll see what a smart and painless way it is to save in the long run. A new window will fix a drafty room, but with our ENERGY STAR qualified replacements, you stand to save 7–15 percent on your energy bills. That 7–15 percent is compared to current, non-qualifying products. So if you are updating an older window, the savings could be even greater.

Beyond saving you money, many ENERGY STAR windows and doors offer a protective coating to shield your home and valuables from harmful ultraviolet (UV) rays. Your paint and decor will keep looking new, when properly shielded. The U.S. Department of Energy estimates an annual savings of \$401 for Mid-Atlantic homes that upgrade to a double-pane ENERGY STAR qualified window.

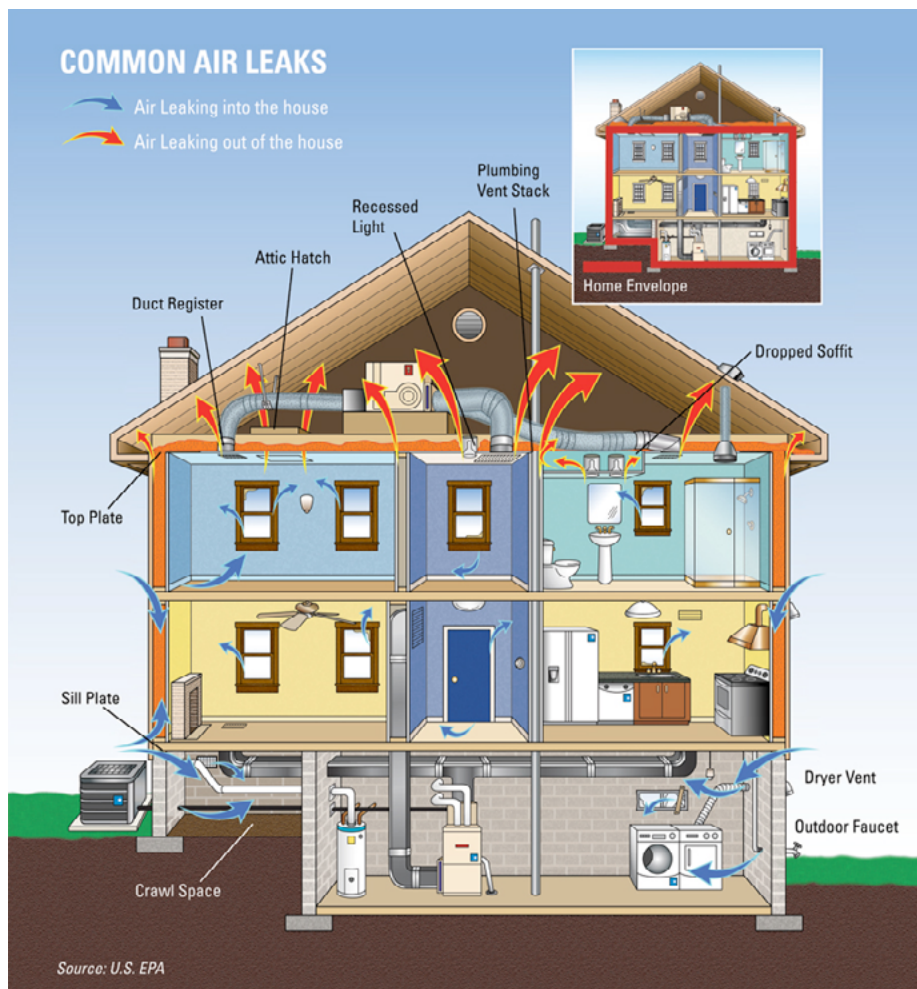


## #2 Insulation. The Smart Way

Sealing and insulating your home from the elements is the most cost effective approach to saving money and reducing energy waste. You could save up to 20 percent on your current heating and cooling costs with consistent sealing to eliminate any drafts, and quality insulation that prevents heat loss in the winter and blocks the outside heat during the summer.

While temperature resistance and effectiveness of most attic insulation decreases each year, most homeowners rarely update their insulation material. When you have TOTAL insulate your home, you can also enjoy the protection of the most recent eShield technology. With the multilayer reflective insulation barrier from eShield, you can add 11.6 to the R-value of your new insulation.

With adequate insulation, and superior protection offered by eShield's radiant barrier technology, you will be guarded against the greatest point of energy loss in your home.



### What's R-Value?

Insulation performance is measured by an R-value, or Resistance to heat flow. A higher number means better insulation. The US Dept. of Energy recommends an attic insulation level of R-35, which is typically about 12 to 15 inches thick. The eShield barrier is an added benefit against the hottest of summer days



## #3 Heating & Cooling Systems

Do any of the following statements apply to you?

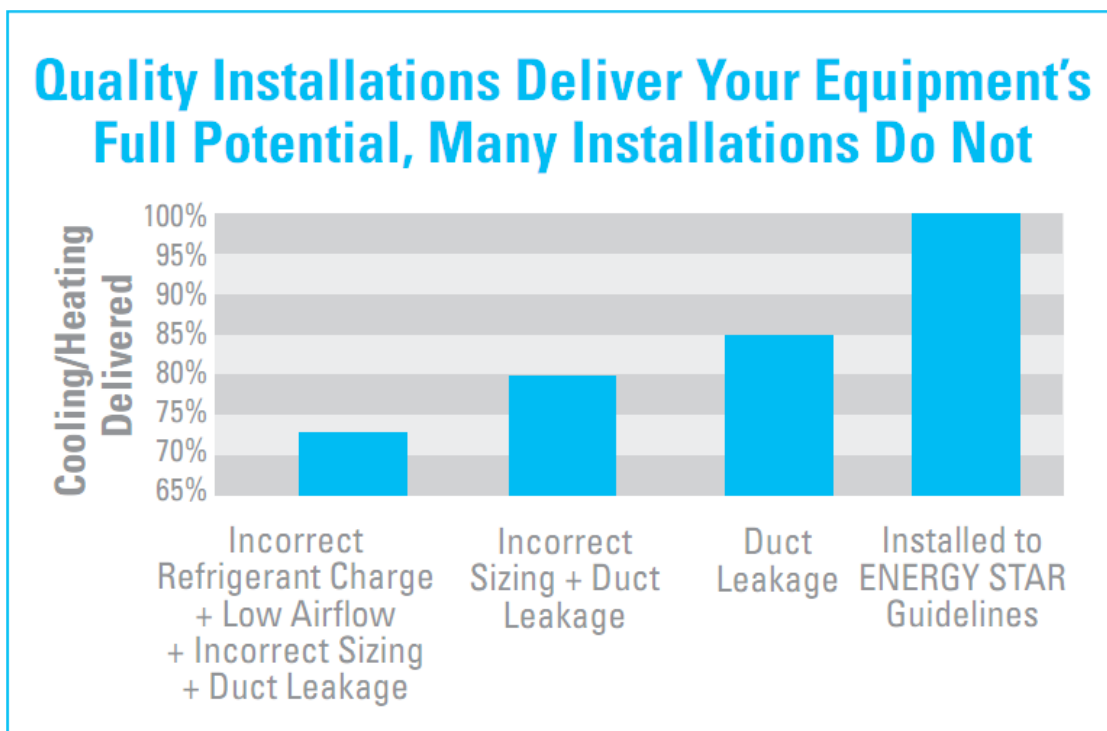
- Some of my rooms are too hot/cold
- My home has humidity problems, extra dust, or some rooms that never feel just right
- My equipment often needs repairs; my energy bills are getting higher
- My heating & cooling equipment is older than 10 years
- I set my thermostat to one constant temperature

If these sound familiar to you, it is highly recommended that you consider making a change.

There are many dimensions to the most efficient heating and cooling system, and these can vary depending on the house it is acclimating. At TOTAL Remodeling, our professionals will make sure to cover all the bases with you. As an important introduction, some of these factors to an efficient heating/cooling system include:

- size of equipment
- sealed ducts
- well-calibrated refrigerant
- optimized air flow

Even if you select quality equipment, an improper installation can reduce overall efficiency by as much as 30 percent! Your contractor should be able to optimize all of the above and more. With an ENERGY STAR qualifying HVAC system, and proper calibration, you can save immensely.



## #4 Proper Roofing

Did you know that Americans spend about \$40 billion every year to air condition buildings? A quality roof product reflects more of the sun's rays, lowering your roof temperature by nearly 100°F. As your first barrier to outside conditions, an energy efficient roof can reduce your cooling system's demand by up to 15 percent.

### **Emissivity/Emittance**

*Just like the "R-value" with insulation (part 2), scientists rate roofing materials by the ability to absorb heat. On a percentage or 0 to 1 rating, materials that absorb a lot of heat are a low number and most roofing has an emittance value of .85 (85%).*

Emissivity is not a requirement of ENERGY STAR qualification, but you should discuss emissivity with your contractor to determine what characteristics matter most for your home.



## #5 A Remodeled Basement Done Right

An unfinished basement is the least-insulated area of a home, and if you are having it remodeled to get the most out of your home's existing space, now is the perfect time to consider some cost-cutting decisions that also lead to a more comfortable environment.

The most obvious choice is to ensure you have the best insulation for your home. Many older homes have less than the homes being built today, but additional insulation even in a new home will pay for itself within a few years.

What might be less obvious, is that it is equally important to ensure the walls are properly air-sealed. Air sealing any cracks or hidden openings in your home can drastically improve building durability and your energy bill while ensuring a cleaner indoor environment. Outside air that is leaking in to your home can also worsen issues with moisture control, especially fostering mold and other sources for health problems. Air sealing is no replacement for insulation, which reduces heat flow, but is just as vital for creating a comfortable home environment.

While these points are important for any room in your house, it is especially important for basements to have some form of moisture control. Properly controlled moisture can improve the effectiveness of your air sealing and insulation. All three of these factors work in tandem, so it's important to make sure your contractor covers each of them when making your energy home more energy efficient or creating a newly remodeled space.

Mere drywall will leave you with an uncomfortable climate and excessive energy costs to maintain the temperature you are most comfortable with. Our design/build team at TOTAL Remodeling will make sure that your finished basement has the necessary installations to create the most comfortable and cost-effective new space in your home.

**Table 1. Annual Savings with Basement Wall Insulation**

| U.S. Cities     | R-10* | R-2-** |
|-----------------|-------|--------|
| Buffalo, NY     | \$350 | \$390  |
| Denver, CO      | \$310 | \$360  |
| Minneapolis, MN | \$400 | \$450  |
| Seattle, WA     | \$280 | \$320  |
| St. Louis, MO   | \$250 | \$290  |
| Washington, DC  | \$250 | \$280  |

\*Such as 2 to 3 inches of exterior foam insulation.

\*\*Such as with most insulated concrete forms.

## #6 Insulated Vinyl Siding

As many people are looking to give their home exterior a makeover with great-looking vinyl siding, they could also be saving on their energy bill in a very low-maintenance way. Insulated vinyl siding offers your home a thicker, more durable, and energy-efficient exterior than any other material. Insulated vinyl siding can pack an R-Value of 2, 3, or greater. Compare that value to other siding options:



| COMPETITIVE PRODUCTS       | R-VALUE |
|----------------------------|---------|
| ● Stone                    | .01     |
| ● Stucco                   | .10     |
| ● Brick                    | .11     |
| ● Fiber Cement             | .59     |
| ● Traditional Vinyl Siding | .62     |
| ● Wood                     | .81     |

Insulated by form-fitting extruded polystyrene (EPS) backing, this energy efficient alternative is also more resistant to damage and extreme weather than traditional vinyl siding. A well-insulated exterior means you will be cooler in the summer, warmer in the winter, and enjoy a quieter home all year round.

*For additional information please  
visit our website  
[www.totalremodeling.com](http://www.totalremodeling.com)  
or call us at 1.888.235.4302*

