How Do I Make My North Carolina Home More Comfy and Efficient?

Green@self-help.org *1/4/12*

So you have done all the "do it yourself" projects and you are ready to invest in home energy. We have noticed 2 ways to approach the project: **"Just Do It"** or **"Get Information, Then Just Do It".**

1) "Just Do It" means your project involves fixing mostly the "Big Energy Basics" that every house needs:

- Seal the holes that let air move into your walls and rooms
- Seal the ductwork
- Add attic and crawl space insulation (relatively new homes may already have enough)
- Seal your crawl space for ~15% energy savings.
- Get an outside air intake or some other "fresh air" system (if your house is tight, then you need this)

Make sure your contractor plans to check four key details after they work.

- Double check afterwards that all gas appliances and fireplaces still draft properly.
- Run a blower door & duct blaster to confirm that they sealed all the holes
- Make sure your bathroom and kitchen fans vent to outdoors (then you need to use them regularly!)
- Run a radon test, just to be sure. You can do this yourself with an inexpensive test kit, such as Accustar Alpha Trac available at Amazon and other online vendors.

2) "**Analyze, Then Just Do It."** For this approach, you hire a home energy rater to test how leaky your house and ducts are. They run a computer model to help you choose the most effective energy investments. This is the approach for you if you love to gather information AND you don't get paralyzed by too much information. The energy models tend to be moderately accurate.

You will probably find that your best energy investments are "the Big Energy Basics" (above). The energy rater may bring in an HVAC contractor to recommend upgraded heating and air conditioning. They will then write a report to give you a comprehensive picture of your house's energy use & a path for fixing it. This article tells you more info about preparing for a home energy audit: http://bit.ly/85Scl0.

3) Finding a contractor.

Two certifications will give you reassurance that your home energy contractor has some basic level of skill: Home Energy Raters (HERS) and Building Performance Institute certification holders.

Always get 2 or 3 bids. Ask what their quality assurance process is. Check references for previous happy customers.

Your electric or gas utility may provide an basic energy audit, but usually won't provide an energy model to show savings.

As of January, 2012, the City of Durham's community energy campaign is providing basic home energy retrofits for a very small fee. Details and an application form are here: http://ow.ly/8pMs5.

Low income homeowners may be eligible for free energy efficiency services through North Carolina community action agencies. http://bit.ly/pqEZfS.

4) Stay focused on the basics. As you consider your contractor's recommendations, make sure to stay focused on the Big Energy Basics (above) plus HVAC upgrades if they are practical. Only after you have done those items does it make sense to consider solar hot water, heat pump water heaters, radiant barriers, and other ways to optimize energy savings.

5) Avoid Snake Oil. There are some bad ideas that building scientists have debunked, but are still commonly sold by contractors. Avoid these.

- Powered attic ventilators don't save energy and can cause mold problems. Read more here: http://ow.ly/8hXn1

- Powered crawl space ventilators make your crawl space wetter. If crawl space upgrades are in your future, please read the Field Guide to Southeast Crawl Spaces before buying services. www.crawlspaces.org

- "Let the house breathe" is old advice. But it's wrong. A better slogan is "Build it Tight and Ventilate Right". Read more here: http://ow.ly/8hZmF

- Vent-free fireplaces are a bad idea. Read more here: http://ow.ly/8hXVs

- Plug in ionic air cleaners are a bad idea. These generate ozone and are harmful to people with respiratory issues.