

Added Incentive to Live a Little Greener

Federal and local incentives encourage higher-performance homes

If you've been considering making "green" upgrades to your home, now is the



time to take advantage of some great tax credits and rebates that can help make your home a little more environmentally-friendly. Following are highlights of just a few of the local and federal incentives available for using environmentally-conscious materials and systems and making other home improvements.

Federal:

- The federal tax credit for residential energy properties applies to solar electric systems, solar water heating systems, fuel cells, small wind energy systems and geothermal heat pumps. A taxpayer may claim a credit of 30% of qualified expenditures for a system that serves at a primary or secondary US residence for the taxpayer. The 2009 stimulus package removed the caps and specific dollar amounts that were previously imposed on these credits.
- A 2008 energy improvement act applies to energy-efficiency improvements to the building envelope of existing homes and toward the purchase of high-efficiency heating, cooling and water-heating equipment for a primary residence. The 2009 stimulus package extended these credits through 2010, and raised the maximum credit from \$500 to \$1500 per homeowner.
- For more information, visit www.energystar.gov/taxcredits.

Maryland:

- Montgomery County residents can receive credits for the clean energy they purchase through a Clean Energy Rewards energy supplier or Renewable Energy Certificates (RECs), or that they produce onsite using solar systems. To be eligible for the credit, at least 50% of one's annual electricity use must come from clean energy sources.
- Additionally, Montgomery County residents can receive property tax exemptions of 50% of the total system cost up to \$5,000 for heating, cooling and electricity generating systems and \$1,500 for hot water supply systems. Excess credits accrued may be carried forward for up to two years.
- Statewide, solar heating and cooling systems are granted a special property value assessment that negates their increased value against conventional systems. Solar photovoltaic and solar thermal systems in contrast are fully exempt from real property taxes under a separate provision in the tax code.
- For more information, visit www.energy.maryland.gov.

Washington, DC:

- According to the District's Department of Environment, their solar-electric purchase program offers a rebate based on the size of the system installed, and runs through 2012. Rebate amounts equate to about one-third of the cost of a typical solar electric system. The owner has six months from the date of approval to complete the installation.
- For more information, visit www.green.dc.gov.

Virginia:

- Virginia allows any county, city or town to exempt or partially exempt solar energy equipment or recycling equipment from local property taxes. Residential, commercial or industrial property is eligible.

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Horgan Earns Early LEED AP Homes

BOWA Builders is pleased to announce that Vice President of Best Practices Doug Horgan is among the first residential building professionals nationwide to achieve the new Leadership in Energy and Environmental Design (LEED) AP Homes credential. Grounded in the pursuit of excellence and continuous improvement, the certification is part of a multifaceted credentialing system from the Green Building Certification Institute (GBCI).



“Doug’s early adoption of these principles and dedication to advancing his green-building knowledge helps to solidify BOWA’s position as a leader in green remodeling,” said CEO Larry Weinberg. “We’re fortunate to have this level of expertise on our team as we continue to push the green-building envelope to deliver superior results to our clients.”

With more than 20 years experience in residential remodeling, Horgan is recognized as one of the area’s foremost authorities on green remodeling and construction quality. He applies this knowledge to his role as BOWA’s vice president of best practices, where he champions the company’s standard of excellence through research and development, training and quality control programs. 

Curious About Going Green?

If you know of a group that could benefit by learning more about green building, let us know!

BOWA's team of experts has received a tremendous response to the presentations given to homeowner associations, realtors, architects and other professional groups throughout the region.

Recent presentations have ranged from 20 minutes to an hour and have covered such topics as:

Energy Priorities; LEED for Homes; and Planning Green Renovations

We would welcome the opportunity to customize a presentation to meet the specific needs of your audience and agenda.

For additional information call your BOWA contact.



Plan Now For a Safe Fall & Winter

To ensure your home is ready for the seasons ahead, it’s important to plan now by scheduling service people or setting aside time to follow our winterizing checklist.

Interior: So simple, you can’t afford to neglect these tips!

- Replace smoke detector batteries.
- Replace carbon monoxide batteries.
- Check and clean fireplaces and chimneys.

Exterior: Help to ensure the long-term health of your home.


- Clean debris from gutters and downspouts.
- Shut off and drain hosebibs.
- Check and clean septic system.
- Caulk and re-touch exterior paint.
- Lock windows to keep them square.
- Make sure drainage is heading away from the house.

HVAC: A ‘Fall Start Check,’ consisting of the following, should be performed on each unit of the HVAC system.

- Check and replace air filter.
- Check combustion chamber.
- Check charge on heat pumps, if applicable.
- Check humidifier operation and replaceable parts.
- Clean away leaves and debris from outside units.
- Adjust dampers to favor northern rooms.

Environmental Incentives *(continued from page 1)*

- Virginia also allows a four-day sales tax exemption on certain classes of ENERGY STAR and WaterSense products of \$2,500 or less per product, purchased for non-commercial home or personal use. This 100% exemption from the state sales and use tax applies to sales occurring during the special four-day period each October. For certain energy efficient products purchased other times of the year, individuals may claim a deduction of 20% of sales tax, up to \$500.
- For more information, visit www.deq.state.va.us.

These incentives complement BOWA’s own Environmental Incentive Program (EIP), which rewards clients who select recommended environmental upgrades for their 2009 construction projects. By rebating our fee on up to \$100,000 in related costs for items that go above and beyond our already-high standards for things like insulation, windows or HVAC systems, we hope to encourage clients to choose even higher performance materials. 

Energy-Saving Strategies Payoff

BOWA home expected to be 47% more efficient

When planning a new home or renovation project, homeowners are faced with numerous decisions. Among those are questions about what steps to take to improve the home's energy efficiency. As there are so many factors involved, an in-depth look at a BOWA Builders project currently under construction in Maryland, may help to demonstrate how the various energy-saving strategies can work together to create a truly efficient home.

Energy-efficient construction starts with building a good outer shell that is properly insulated and minimizes air leakage. This is a critical first step as 30% of heat loss in a typical house is due to air leaks in the shell. By minimizing this loss, we're able to reduce drafts and cold spots to maintain a more comfortable environment, while reducing the demand on heating and air conditioning units and energy usage.



A layer of air-sealing spray foam applied within the walls and at potential leak points in the attic helps to minimize air leaks in the building's shell - a critical first step.

For the Maryland project we minimized air leakage through careful workmanship, attention to detail, and a combination of the "airtight drywall approach" and a layer of air-sealing spray foam applied within the walls and at potential leak points in the attic. We then ensured the proper installation of an upgraded level of insulation. While the walls on a typical home are four inches thick, this home features eight-inch walls to allow for additional insulation. After receiving the layer of air-sealing spray foam, the walls were filled with blown-in insulation, which forms a continuous barrier that fully surrounds wires, pipes and other obstructions. The attic and knee walls were also sealed and insulated in a similar manner. This approach achieves the top "Grade 1" rating for insulation effectiveness, compared to the lowest "Grade 3" rating earned by typical fiberglass batts.

Additionally, the windows selected on this Maryland home were key to maximizing efficiency. One measure of a window's efficiency is the U-value. The lower the U-value, the greater a product's insulating ability due to a higher resistance to heat flow. Coatings and special assembly techniques, such as using two or more layers of panes, low-conductance

gas fills between the layers and thermally improved edge spacers, help to reduce a window's U-value. While code-minimum windows have a U-value of .50, the ones selected for this project are .29 U-value, which are nearly twice as effective.



Blown-in insulation forms a continuous barrier as it fully surrounds wires, pipes and other obstructions, and achieves the top "Grade 1" rating for insulation effectiveness.

Once we ensured the shell of the house was optimized, we installed ultra-efficient equipment and ductwork for heating and cooling the home's interior. The HVAC selected for the home is a geothermal system, which is about four times as efficient as gas heat and twice as efficient as ordinary air conditioning. Also, the ductwork was sealed with durable mastic and rigorously tested by an independent third-party energy rater to ensure air leaks would be minimized. Finally, the attic ductwork was sealed and insulated with a layer of spray foam.

Collectively, the enhanced energy-saving strategies employed on this project will result in a home that uses nearly half the energy of a code-built house. The home was tested according to the Home Energy Rating System Program (HERS), which includes an analysis of a home's construction plans and onsite inspections. The analysis yields a pre-construction HERS Index rating, which can be compared to that of the HERS Reference Home that is built to standard code and yields a score of 100. Each one-point decrease in the rating corresponds to a one-percent reduction in energy usage. With a HERS Index rating of 53, we're pleased to say this home is expected to be 47% more energy efficient than a code-built house. ↑



As certified by a Home Energy Rater, the enhanced energy-saving strategies employed on this project will result in a home that uses nearly half the energy of a code-built house.

Whatever Happened to Old-Fashioned Customer Service?

It's alive and well at BOWA Builders! Since opening our doors, we have remained committed to delivering Heroic Customer Service to our clients at every step of the process - from our first meeting until long after the project has been completed. Twenty years later, we're humbled by the letters and kudos we receive from clients thanking us for our attention to detail and care for their home and family - we hear time and again this is what sets BOWA apart. Below are a few examples of the service our clients have come to equate with BOWA Builders:


- Last December, BOWA Project Manager Tom Johnston was finishing up last-minute details at a client's home before a Christmas Eve party they were having. A decorative mantel piece was due to be delivered and installed that day, but unfortunately Tom was notified last minute it would not arrive. Rather than disappoint the clients, Tom and the team built a beautiful wood mantelpiece to temporarily replace the final version. Tom stayed at the client's house painting the temporary mantel until 7:00 pm on Christ-



mas Eve to ensure their house was ready for the party.

- BOWA Carpenter Alex Castellon was working at a client's home during the winter when a snowstorm hit. The client mentioned she was worried about driving her housekeeper home because of the snow. Alex volunteered to drive the housekeeper without hesitation. Later, noticing she was low on her stock of firewood, she asked if he would mind carrying a few armloads from the storage area to the porch. Alex carried more than a few armloads – he filled the entire rack so she would be well stocked for days to come.

- BOWA clients in Washington, DC were ecstatic when, in the middle of their project, they returned from a lengthy trip overseas. Expecting to come home to a messy, unorganized construction site, they were pleasantly surprised to find that not only was their home in great shape, but the team had stocked their fridge with food from a local restaurant. They were delighted that BOWA had thought to take the extra steps to make their homecoming special.

As you can see from these examples, everyone at BOWA takes great pride in going the extra mile for our clients. 



7900 Westpark Drive, Suite A10
McLean, VA 22102
Phone: (703) 734-9050
www.bowa.com