



Build Green NH Newsletter

www.buildgreennh.com

June 2010

Our mission is to promote, educate and support the practice of green building and remodeling in New Hampshire by creating a meaningful yet flexible standard for building and remodeling techniques and materials.

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Dear BGNH Members and Others:



Are you taking advantage of the Green Movement especially in the building and remodeling fields? Are you educating your customer and consumers about green building and remodeling? As construction professionals it is our responsibility to be aware of the sustainability of PLANET EARTH! Plan, practice, preach and profit with GREEN.

Plan: Yes there are so many opportunities to learn about green. Things such as, attend a BGNH monthly meeting, attend a BGNH breakfast seminar, check out the BGNH web site, attend a NAHB green webinar [Real Strategies for Building Green in a Rebounding Market](#), held June 15, get your CGP designation, attend a [NH Energy Code Workshop](#) are just a few resources.

Practice: That's right. Implement green practices in your business and personal life. Sell green building and remodeling projects. It's not just energy savings. Recycle and save money, our firm separates waste and saves many products for future use. Huge savings, we have changed toilets, faucets to reduce water usage-saving money. Learn and offer to your customers the NAHB GREEN STANDARD. PSNH and other utility companies offer cost saving on your green home building project, contact them for details. Are you building or remodeling using "building science and home performance" techniques? Get certified in these areas.

Preach: Yes we need to let everyone know about GREEN and the many benefits and the "real" facts. Use every chance to get the word out. Get more BGNH members. Consumers are getting mixed messages, we need to get them the facts. Doing simple projects isn't expensive yet consumers only are seeing the complex and costly green projects so they think going green is VERY EXPENSIVE! It is NOT.

Profit: Yes, this industry is now ground floor and is growing. There are numerous federal, state and local programs offering you and your customer many money savings with rebates, grants, loans and other incentives. Stay focused, learn, become an expert in the Green field and PROFIT.



As always, contact me if I can help in any way, 674-5396
Rick Bouchard rick@queencityremodeling.com



DES Seeks Comments on Innovative Permitting Initiative

Over the past year, DES has conducted research, collected input, and involved numerous DES staff and outside stakeholders to develop a proposed approach for the DES Innovative Permitting Initiative. You may review the proposed pilot program [here](#). DES is currently seeking comments on the proposal through June 30, 2010. As the final procedures and supporting materials are produced they will be available at the DES website as well. DES expects to begin the pilot program this summer. If you are interested in participating or have questions about this initiative, please contact either Carolyn Russell (carolyn.russell@des.nh.gov or 271-3010) or Muriel Lajoie (muriel.lajoie@des.nh.gov or 271-8139).



To submit an article for a future edition of the Build Green NH Newsletter, [email](#) or call 603-228 0351.

[Click Here](#) to join the Home Builders and Remodelers Association of New Hampshire and Build Green NH.

You are receiving this newsletter as we believe the content is of value to you as a professional in the building and development industry. You may opt-out of future e-mail or fax communications being sent to you by notifying Build Green NH of your desire [click here](#) or by phoning at 603-228-0351.



The Home Builders and Remodelers Association of New Hampshire, (HBRANH), an affiliate of National Association of Home Builders, (NAHB) is one of the states largest trade associations dedicated to the growth of the building industry, to provide affordable housing for all income levels and to build a positive image for the building industry. Build Green NH (BGNH) is a council of HBRANH.



Build Green NH
www.BuildGreenNH.com

Today's home buyers want to cut their energy bills and live in healthier homes. The NAHB National Green Building Program has a flexible green rating system to fit their budgets. For green home building that's workable, authentic and affordable, go to NAHBGreen.org.

Build Green NH is a council of the Home Builders & Remodelers Association of New Hampshire
"Building New Hampshire's Future"

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www.buildgreennh.com

Growing Green: A Sustainable Approach to Residential Construction

This is the third webcast in the series called Building Communities. This particular show addresses how builders are incorporating the "Green" philosophy as well as the impacts on the housing world. The purpose of the webcasts is to discuss some of the latest innovations, processes, research, studies and topics related to the field of residential construction. This is part of a partnership between ECU's Department of Construction Management and the National Housing Endowment, the philanthropic arm of the National Association of Home Builders.

[Watch the video](#)



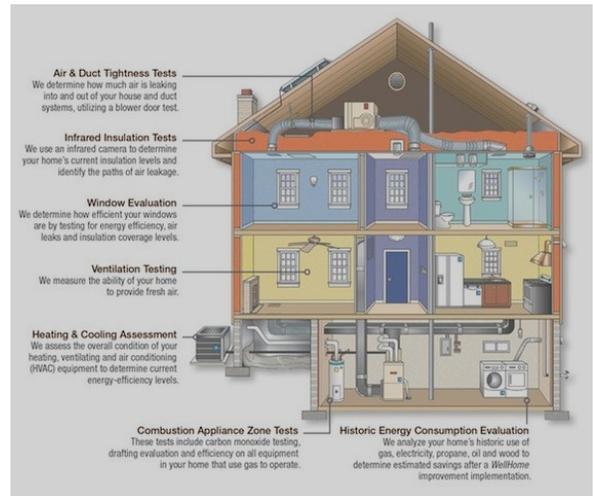
After work, couple has a warmer home and lower bill

EXETER -- Imagine having your 105-year-old home insulated from top to bottom and not having to feel the cold drafts anymore.

Now, imagine that all this work -- which includes blowing in insulation through the walls, wrapping heat ducts, applying weatherstripping to exterior doors, insulating the cellar ceiling and sealing the sills of the home -- is mostly paid by your utility company and the federal government.

And, to make this story seem even more fantastical, the portion of the costs you provide -- about \$1,000 -- you make back in electric and gas bill savings within one year. Sound too good to be true?

Margaret and Patrick O'Day investigated having their Exeter house weatherized last year and called Unutil, the utility that provides both their gas and electricity. The company offers several energy-efficiency programs, and because the family gets both gas and electric from Unutil and met certain criteria rating their home's heating index energy use, they qualified for \$8,000 in rebates.



Unutil referred the O'Days to Masco Home Services, which provides the testing and acts as the general contractor for the improvements. Masco made all the improvements during December of last year, with what the family said was minimal disruptions.

Masco recently rolled out a new service called WellHome, which will test a home's energy efficiency, including using infrared temperature guns, a blower-door test to see where air leaks are occurring, and carbon dioxide and air-flow monitors. For \$149, WellHome will perform a "full-house assessment," according to Nashua general manager Lucas Benson. And if WellHome does the work, the fee is waived and the company offers a guarantee that the improvements they do will save money over last year's bills, or they pay the difference.

The O'Days have lived in their downtown Exeter home about five years. During that time, they painted, redid floors, overhauled the kitchen and replaced the windows. Patrick, a local attorney and Exeter School Board member, said ice dams last winter caused some water backups that stained ceilings and caused the couple to check out their options. His wife Margaret, a social worker, and their two young children didn't want to have to go through another winter of cold, drafty rooms, especially one upstairs at the north corner that was occupied by a daughter and was always cold. When Margaret found out that a lot of the work would be covered by Unutil grants, and some of the money would be returned through their income tax, her initial reaction was, "You've got to be kidding me."

Tom Lee, the WellHome performance adviser, said a crew dense-packed the attic and exterior walls with cellulose insulation, spray-foamed the rim joists in the cellar and insulated a porch at the rear of the house used now as a place for the kids to do their homework. WellHome also did other work weatherstripping doors and wrapping heat ducts. In fact, the room at the rear of the house had a door which the O'Days kept closed because it was so cold out there. With the improvements, they removed the door and feel they no longer need it.

"There's always some disruption when you do a project," said Patrick O'Day, "but they were very responsible and came when they were supposed to come ... and we always knew what was going on." "This has been a wonderful improvement," Margaret O'Day said.

For more information on WellHome, call 578-9275 or visit online at www.wellhome.com.



Upcoming Events:



June 7-July 31, 2010 • Boston Architectural College
Sustainable Design Courses
[Event details and registration](#)

June 8, 2010 • 8:30 am - 3:30 pm • Berlin, NH
OEP/GDS Energy Code Workshop
[Event details and registration](#)

June 10-12, 2010 • Miami, FL
AIA National Convention
[Event details and registration](#)

June 15, 2010 • 8:00 am - 2:15pm • Waltham, MA
Green Office/Green Facility Conference
[Event details and registration](#)

June 15, 2010 • 2:00 pm - 3:00 pm
Webinar: Real Strategies for Building Green in a Rebounding Market
[Event details and registration](#)

June 15, 2010 • 3:00 pm - 5:00 pm • Manchester, NH
**Build Green NH Monthly Educational Series
A Preview of Energy Star 2011**
[Event details and registration](#)

June 16-17, 2010 • New York, NY
Green Buildings NY
[Event details and registration](#)

June 17, 2010 • 8:30 am - 3:30 pm • Bretton Woods, NH
OEP/GDS Energy Code Workshop
[Event details and registration](#)

June 18, 2010 • Watertown, MA
LEED Core Concepts and Strategies
[Event details and registration](#)

June 19, 2010 • 8:00 am - 4:30 pm • Concord, NH
NH Local Energy Conference
[Event details and registration](#)

June 23, 2010 • 7:30 am - 3:00 pm • Fairlee, VT
A Focus on New Energy & Green Building Codes
[Event details and registration](#)

July 24, 2010 • 9:00 am - 12:00 pm • Weare, NH
Moisture Management in Older Homes
[Event details and registration](#)

August 10-11, 2010 • Boxborough, MA
Northeast Propane Show
[Event details and registration](#)



[Join Build Green NH](#)

Green Building Resources:

<http://>



BASF collaborates with the [Department of Energy](#) and [Green Builder Media](#) to present the ReVISION Vegas demonstration home—a 1963 mid-century modern home in Las Vegas got an energy-efficiency overhaul, improving performance from a HERS score of 123 to 44. It will be a net-zero energy home when the 4.8 kW of photovoltaic panels are added.

Find out how this demonstration home was transformed from typical energy hog into a net-zero energy home—a home that makes as much energy as it uses.



Learn more about this retrofit [here](#) and watch how BASF technologies were applied in the house



Clean Power Development, LLC RENEWABLE ENERGY

JOB: Clean Power Development Project, Berlin NH

Construction of Clean Power Development's 29 megawatt biomass facility in Berlin, New Hampshire is poised to begin and will bring a meaningful infusion of new jobs to this economically depressed region of the state. [Clean Power Development](#) (CPD) is a New Hampshire based company with participants that have proven experience and track record related to successful development, construction and operation of numerous biomass energy projects in NH. The Berlin plant will be a 29 megawatt Combined Heat and Power (CHP) facility that will use approximately 340,000 tons of wood chips annually, harvested within a 30 mile radius of the plant. The plant has been designed to operate at nearly 62% efficiency via engineering for steam off-take operations in a cogeneration design.



PACE Bill Passes NH Legislature

On May 12, 2010 the New Hampshire Senate passed HB 1554, AKA the "PACE Bill." PACE is an acronym for Property Assessed Clean Energy – its final passage will enable municipalities to establish revolving loan funds to finance energy efficiency and renewable energy projects for both residential and commercial properties. [CLICK HERE](#) to read the full text of HB 1554.

List your business with the Energy Project Connector.



NHSEA has partnered with New England Carbon Challenge to create the Energy Project Connector.

This tool harnesses energy resources from across the web to create a single searchable web tool. The result is a customized report detailing:

- federal, state and utility incentives
- rebate and financing options available for residential energy audits, upgrades and renewable projects
- professionals and organizations that can provide these services.

We want your business to be a part of this important resource.

[CLICK HERE](#) to enter your business into our database.

For more information contact: Madeline@nhsea.org

This project is funded by the New Hampshire Greenhouse Gas Emissions Reduction Fund (GHGERF).

Why should I have an energy audit? How much can it really save? Is 30-50% a reality?

These days, the buzz is all about becoming energy efficient. We all want to reverse the effects of global warming, but with all the information out there, it can be overwhelming and confusing, making it difficult to even begin the process. One of the best places to begin is in your own home, by seeking the help of an energy auditor. Conducting an energy audit will target those areas of the home that need improvement in becoming more energy efficient, and it will help you come up with a plan of action, saving you money while you help save the planet. In this two part series, we will look at why everyone should have an energy audit.

A qualified energy auditor will review seven areas of the home, in the following order, to determine if the home is energy efficient: Outside or Exterior, Basement, Attic, Heating & A/C System, Ventilation, Doors & Windows, and Exterior Walls. Like the human body, each part of a home must work in sync with each other. If one part is compromised, other parts may be impacted as well, making the house "sick" or non-energy efficient.

Overall 77% of a home's heat loss is realized through infiltration, which is heat loss around the windows, outlets, doors, basement flooring, cracks and other parts of the home that allow cold air in and heat loss out.

To learn more, contact Bob Tortorice, Energy Auditor and Owner of [Building Alternatives, Inc.](http://www.buildingalternatives.com), Franconia, NH and an award winning Green Energy Efficient Builder, Builder of the Year in 2009 at www.buildingalternatives.com or (603) 823-5100.



Building Alternatives, Inc.



We Need to do it Different This Time

Stop me if you heard this before. It was anything but easy when we tried this the last time. Not because it was hard, but because we didn't know what we were doing.

It is amazing to me that most folks no longer remember the 1973 Oil Crisis. In October of that year Egypt and Syria attacked Israel on Yom Kippur. The Soviet Union got into the act by supplying replacement weapons and supplies to the Arabs. The United States responded by supplying replacement weapons and supplies to Israel. The Arab nations then responded with an embargo on oil exports to the United States.

You youngsters can imagine what that did to the price of oil. What made things worse was that we were also in the middle of a stock market crash. It took a decade to recover, and then we were whacked again in 1979 when oil shot through the roof with the fall of the Shah and the Iranian Revolution. The only good news at the time was that by then Prudhoe Bay and the North Sea had come online so that the second shock was not as bad. Bad is a relative term here as interest rates were at 20 percent at the time and the construction industry tanked.

You would think that we would have all learned something from the experience. [Read the entire article](#)

building science.com

By Joe Lstiburek, Ph.D., P.Eng., Fellow ASHRAE



They once sailed high seas, now could be home

CAMPTON -- Shipping containers that have traveled the high seas and highways could end up being someone's home rather than ending up in a landfill. That is the idea of Erik M. Kampmann of Campton, a member of the Build Green NH Council who for 20 years has specialized in housing construction and residential architecture. Kampmann got the idea for a 2,400-square-foot home design using seven shipping containers which each cost just under \$3,000 to purchase. The idea of reusing shipping containers for shelter is not really new, he said, but his concept is different.



"Mostly they have been used in military applications as a quick build," and have also been reused in Louisiana and Mississippi after hurricanes. Kampmann said he sees a future for the corrugated metal boxes, each about 8 feet wide, 9 feet high and 40 feet in length. Kampmann recently created a model which can be fully viewed on his



Web site, www.emkdesigns.net. He began peddling the idea to consumers at green home-building shows and is only beginning to market the concept. "These containers are exposed to the worst weather," as they are used to convey products to market around the world, and they are stockpiled in landfills and allowed to eventually rust out, he said. His design would incorporate a concrete foundation with three containers stacked up side by side on the ground floor and four on the second floor. The only part of the design which would not

be made from shipping containers would be the center structure used for the second-floor bathroom. The model includes three bedrooms, two and a half baths, a great room, dining room, home office, laundry and a spacious kitchen. Two of the bedrooms have their own private, covered balcony. He estimated homeowners would save about 10 percent from a modular or stick-built house, but in this case, they would be recycling. The house could be adapted to have geothermal heat, solar arrays on the roof and spray foam insulation if desired. He said a roof would be optional, but he incorporated it into his design. "Without a roof would work, but it would look ultra-modern," Kampmann said. He said building trends in the Northeast now tend to be smaller and more energy efficient than in the last building boom when people were constructing larger houses. Those who are interested may also reach him at EMK Designs Inc. at 254-2006.

Passive House Arrives in North America: Could It Revolutionize the Way We Build?

Originating in Germany twenty years ago and drawing inspiration from the superinsulation and passive solar movements in North America in the late 1970s, Passive House has migrated across the Atlantic. To date, about a dozen buildings have been certified to the Passive House standard in North America, and at least two dozen are in various stages of development. The Passive House Institute U.S. (PHIUS) and its founder and director, German-trained architect Katrin Klingenberg, are leading the implementation of the system in the U.S.



The Stanton House in Urbana, Illinois, built in 2008, has 2,200 ft² of floor space (as calculated in PHPP), R-64 walls, R-87 roof, R-51 sub-slab insulation, and triple-glazed windows rated at U-0.17 (0.96 W/m²K).

Passive House is a quantitative, performance-based standard for ultra-low-energy buildings—both residential and commercial. The U.S.-based standard, which is virtually identical to the German Passivhaus standard, allows no more than 15 kWh/m²/yr (4,755 Btu/ft²/yr) of energy consumption for heating, the same for cooling, and total energy consumption, including lighting, appliances, and plug loads, of no more than 120 kWh/m²/yr (38,000 Btu/ft²/yr) of primary energy use, which accounts for the energy used in extracting and processing fossil fuels and generating and distribution of electricity. In addition, Passive House standards include a stringent air tightness requirement of 0.6 air changes per hour at 50 pascals pressure difference across the envelope.

While energy experts EBN spoke with like the specific targets, some argue that the Passive House standard could be improved in North America by addressing some concerns, including how the standard works in our more diverse climate, the inherent penalty against small buildings, and the difficulty of achieving Passive House performance with existing buildings. [Read the entire article](#)



Dan Whitmore of Blackbird Builders is using a "Larsen truss" detail in this Passive House he is building in Seattle for his family. The 14" wall cavity will be insulated with dense-pack fiberglass to

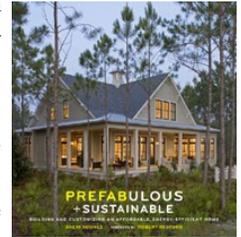
By Alex Wilson



Epoch Homes Featured in New Book on Cutting Edge Prefab Homes

Epoch Homes, a leading New England based manufacturer of award winning, fully custom sustainable green homes, has two of their beautiful modular homes featured in the new book by author Sheri Koones showing some of the best Green Prefab homes in the country.

PEMBROKE, NH. March 4, 2010 – Epoch Homes is honored to be recognized as an industry leader by Sheri Koones in her new book titled *Prefabulous+ Sustainable*, published by Abrams Books. The book details some of the best prefab green homes in the country, categorizing the homes as Green, Greener, and Greenest. The Powerhouse and The Mountain Home, two out of the eight Greenest homes in the book, were built by Epoch Homes at their factory in New Hampshire. [To buy the book at Amazon.](#)



About ENERGY STAR New Homes

Homes that earn the ENERGY STAR must meet guidelines for energy efficiency set by the U.S. Environmental Protection Agency. ENERGY STAR qualified homes are at least 15 percent more energy efficient than homes built to the 2004 International Residential Code (IRC).

ENERGY STAR qualified homes can include a variety of [energy-efficient features](#), such as effective insulation, high performance windows, tight construction and ducts, efficient heating and cooling equipment, and ENERGY STAR qualified lighting and appliances. These features contribute to improved home quality and homeowner comfort, and to lower energy demand and reduced air pollution. [Learn More.](#)

My Energy Plan™

Everyone needs a plan.
Create yours at:

MYENERGYPLAN.NET

The Energy Project Connector

The [New England Carbon Challenge](#), a joint initiative of the [University of NH](#) and [Clean Air-Cool Planet](#), is proud to announce the release of its new comprehensive web tool – the Energy Project Connector. This web tool makes starting a home energy project much easier. You can find the tool [here](#). This tool was developed in partnership with [NH Sustainable Energy Association](#) and University of NH Cooperative Extension.

So how does it work? It searches all the *federal, state and utility incentives* available to New Hampshire residents for a home energy job and then provides a list of all the contractors and energy auditors who can do that work in a given area. The reported information is specific to each user based on where they live and what kind of project they are interested in pursuing. This tool compresses hours and hours of web research and investigation into a relatively simple 15 minute exercise.

If you know of any contractors or auditors who fit the bill, please encourage them to sign up to be listed in our database. They can do so [here](#).

This really is a powerful tool. So please spread the word. The tool is free and available to the public at our new [sister site](#).

My Energy Plan is made possible by the [New Hampshire Public Utilities Commission](#) through the [Greenhouse Gas Emissions Reduction Fund](#).



Plan NH seeking volunteers for Belmont Charrette June 4 and 5

(Charrette pronounced [shuh-ret] - The word charrette may refer to any collaborative session in which a group of designers drafts a solution to a design problem. While the structure of a charrette varies, depending on the design problem and the individuals in the group, charrettes often take place in multiple sessions in which the group divides into sub-groups. Each sub-group then presents its work to the full group as material for future dialogue. Such charrettes serve as a way of quickly generating a design solution while integrating the aptitudes and interests of a diverse group of people.)

Plan New Hampshire is pleased to announce that six Granite State communities have been selected for a Plan NH Design Charrette: Belmont, Colebrook, Exeter, Groveton, Jaffrey, and Pittsfield.

The first will be held in Belmont on June 4 and 5, and we are looking for volunteers!

Due to scheduling constraints, Plan NH will be conducting the first of this year's round of Design Charrettes in just two weeks! We will be in Belmont, where our very first charrette took place in 1996.

Project description: Belmont's town center needs a boost. Short of residents that live within the village and the businesses in the Mill (thanks to Plan NH in 1996) there's not much going on. But the potential is there! Belmont is looking for solutions to create destination places and activities to give their village an identity again. Infrastructure, streetscape, changing of traffic patterns will be a part of the solutions. Development opportunities among stakeholders like the Lakes Region Community College will be a catalyst to bring in other service industries that will promote social capital. Opening and creating visual gateways to Route 106 will identify that there is a town center in Belmont. There is also a desire to create a riverwalk connection to the village area.

We are seeking volunteers for the following:

- Architects (including workforce/student housing and multi-use)
- Landscape architects
- Urban designers
- Traffic engineers
- Civil Engineers
- Planners
- Historic preservation
- Real estate – developer, economics
- Construction cost estimators



Please contact Michael Castagna at 603-540-7106 or michael@castagnaconsultinggroup.com if you wish to play a part.



Do Business With A Member

- [Click Here](#) to view a list of Association Members.

For more information about finding a Certified Green Professional or to learn more about earning a Green Professional Designation, [visit Build Green NH](#)