



# The Greener Side

Building a Sustainable Community

Volume 2, Issue 1, February / March 2003

the bi-monthly  
newsletter of the  
Western North  
Carolina Green  
Building Council

## Steering Committee

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*President*

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*Vice-President*

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Marcus Barcsdale,  
*Member at Large*

Aaron Johnstone,  
*Member at Large*

*Any questions or  
comments about the  
newsletter should be  
sent to  
robin@rowhouse-  
architects.com*



## Western North Carolina Million Solar Roofs Program Forum

by Traci Kearns

The WNC Green Building Council will be hosting a public forum on the Million Solar Roofs Initiative February 18<sup>th</sup>. The event will be held at Pack Place in the Forum Room beginning at 5:00. Western North Carolina is a local partner in the National Million Solar Roofs Initiative whose goal is to have one million solar roofs in the United States by 2010. The WNCGBC's local goal is to assist in 500 solar roofs becoming a reality by 2010. Speakers will include Eric Soderberg from the NC Solar Center in Raleigh who will introduce the Million Solar Roofs Initiative on a state and local level. Ned Doyle, local solar advocate will speak about the importance of solar energy in today's world. Chris Carter of Solar Village will share practical applications for creating electricity in our region. Chris will cover the basic components of a photovoltaic solar system. Beach Barrett with Thermacraft will explain the common methods utilizing hot water, produced by solar energy, to heat your home. Bill Guiney of Duke Solar will close the event sharing the latest innovations from Duke Solar. Local solar contractors will also be available before and after the forum to answer questions and share their services. Please join us for this evening of exciting solar news & education, electrifying personalities, and the opportunity for you to get one step closer to owning a solar system of your very own.



## The Green Building Hotline

*A part of the WNC  
Green Building Council*

*Providing WNC with information  
and referrals for environmentally  
sustainable building.*

**232 - 5080 phone or [info@wncgbc.org](mailto:info@wncgbc.org)**

WNCGBC  
PO Box 8427  
Asheville, NC 28814  
[www.wncgbc.org](http://www.wncgbc.org)

Don't forget to contact  
the Green Building  
Hotline with all your  
Green Building ques-  
tions!!!

Ask for Matt Siegel.

 printed on recycled paper

# How Can I Join?

Simply fill out the form below and mail in with your membership dues.

*(dues are for one year membership)*

Name \_\_\_\_\_

Title \_\_\_\_\_

Affiliation \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_

e-mail \_\_\_\_\_

Date \_\_\_\_\_

## Membership categories:

- Individual \$35
- Business \$100
- Nonprofit \$50
- Silver Level Sponsor \$250
- Gold Level Sponsor \$500
- Platinum Level Sponsor \$1000

Total Amount Enclosed \_\_\_\_\_

### The Mission Statement:

The Western North Carolina Green Building Council is a non-profit organization whose mission is to promote environmentally sustainable and health conscious building practices through community education.



**WNCGBC**  
**PO Box 8427**  
**Asheville, NC 28814**  
**[www.wncgbc.org](http://www.wncgbc.org)**



# Safety During the Winter Heating Season

by Ashley Featherstone

Here are the 2003 Committees - please contact any of the members to join a committee!!!

## Executive

Boone Guyton  
Duncan McPherson  
Cindy Meehan-Patton  
David Brannon  
Aaron Johnstone  
Marcus Barksdale

## Directory

Duncan McPherson  
Aaron Johnstone  
Issac Savage

## Education

Cindy Meehan Patton  
*Chair*  
Bobby Mchugh  
Boone Guyton  
Marcus Barksdale  
Nancy Hodges

## Public Relations

Terry Albrecht  
Matt Siegel  
Robin Raines Elliot  
Aaron Johnstone  
Ashley Featherstone

## Fundraising/ Advertising

Bobbi Tousey  
*Chair*  
Marcus Barksdale  
Nancy Hodges  
Aaron Johnstone  
Issac Savage

## MSRI

Traci Kearns  
*Co-Chair*  
Issac Savage  
*Co-Chair*  
Aaron Johnstone  
John Senechal  
Ned Doyle

Studies have shown that the air in our homes can be even more polluted than the outdoor air in large cities. Indoor air quality is important because most people spend at least 90% of their time indoors. Children, the elderly, and those with respiratory and other preexisting conditions are most susceptible to health effects associated with indoor air pollution.

Combustion appliances are one source of indoor air pollution. These appliances burn fuels including gas (natural and liquid petroleum), oil, kerosene, wood, and coal. Examples of combustion appliances include space heaters, furnaces, fireplaces, ranges, ovens, stoves, water heaters, and clothes dryers.

While safety concerns associated with these appliances are important year round, the heating season can be the most problematic time of year. Pollutants from combustion appliances include carbon monoxide (CO), nitrogen dioxide, sulfur dioxide, fine particulates, unburned hydrocarbons and aldehydes, and water vapor. While water vapor is often not recognized as a pollutant, high humidity and moisture levels on building surfaces can lead to the growth of dust mites, mold, and bacteria.

Carbon monoxide is responsible for approximately 500 deaths and over 10,000 emergency room visits in America each year (Consumer Reports Magazine, December 2002). Even healthy adults are at risk from the dangers of carbon monoxide. The other pollutants associated with combustion appliances generally have more subtle health effects and affect sensitive individuals more. Nitrogen dioxide levels indoors have been associated with combustion

appliances and increased respiratory symptoms in children. An article on unvented gas logs in Consumers Report magazine (November 1998) stated that testing results showed that after two hours of use, nitrogen dioxide levels indoors were above the OSHA work place standards and the EPA standards for outdoor air, both of which are set to protect health and safety.

In order to minimize indoor air pollution from combustion appliances:

- Always follow manufacturer's recommendations regarding proper use and maintenance.
- Select the right appliance for your application. If a combustion appliance is selected, choose one that is vented to the outdoors. Make sure the appliance is tested and certified to be in compliance with current safety standards. Certifying organizations include the Underwriters Laboratories (UL) and American Gas Association (AGA) Laboratories.
- Hire qualified professionals to install and periodically inspect the appliance. Furnaces, chimneys, and many other fuel burning appliances should be inspected annually.
- Make sure your home is adequately ventilated. Outdoor air coming in through the cracks and other openings helps to reduce pollution levels. Unvented space heaters require adequate amounts of air for proper combustion. Keep doors open to the room where you are using the appliance, cracking a window can help reduce combustion pollutant levels. Consumer Reports recommends limiting the use of unvented gas logs to less than two hours at a time to reduce nitrogen dioxide exposure.
- Make sure you have a carbon monoxide detector or alarm. A battery powered

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# W N C G B C C A L E N D A R



- Feb. 3, 2003 Low Impact Design and Conservation Planning for Water Quality**  
Sponsored by North Carolina State University at 9:00 AM at The North Carolina Arboretum in Asheville, NC. The conference will highlight innovative planning and design techniques that lessen development's environmental impact.
- Feb. 10, 2003 WNCGBC Monthly Board Meeting**  
5:15 – 7:00 – Land of Sky. E-mail [robin@rowhouse-architects.com](mailto:robin@rowhouse-architects.com) for info.
- Feb. 11, 2003 Build It Better Workshop**  
Topics include multi family housing new construction- affordable, energy efficient and high performing. [www.advancedenergy.org](http://www.advancedenergy.org) or 919-857-9000. This is Workshop #3 in a series. Charlotte, NC Cost \$50 includes full day + lunch!
- Feb. 12 - 15, 2003 GreenPrints 2003- Sustainable Communities by Design**  
Atlanta, Ga. [Greenprints Programs](http://www.greenprints.org) <http://www.southface.org/> or [www.greenprints.org](http://www.greenprints.org)
- Feb. 18, 2003 WNCGBC Public Forum - topic MSRI**  
5:00 – 8:00 – the Forum @ Pack Place. E-mail [robin@rowhouse-architects.com](mailto:robin@rowhouse-architects.com)
- February 20 & March 19: Free Solar Training**  
Duke Solar facility, Raleigh, NC, by Southern Energy Management, topics include solar system applications, design & financials for homeowners & business owners. 6:00 pm. contact Bob Kingery at [bkingery@nc.rr.com](mailto:bkingery@nc.rr.com) or 919/815-5345.
- February 21-23: Successful Solar Businesses Seminar, Ashland, OR**  
Home Power magazine presents a Successful Solar Businesses seminar teaching building blocks needed to thrive in the renewable energy industry. The cost is \$350 per person 800/707-6585 or 541/512-0201 [www.homepower.com](http://www.homepower.com).
- Feb. 27, 2003 Sierra Club monthly meeting on Green Building**  
location: UU Church (Unitarian Universalist) on Charlotte street. Social @ 6:00 pm and lecture @ 7:00.
- February 28-March 1: NC Conservation Network's Third Annual Retreat, Greensboro, NC**  
Visit NC ConNet's website at [www.nconnet.org](http://www.nconnet.org) for more information
- March 7: Energy-10 Workshop, Raleigh, NC**  
Developed for architects and engineers, this workshop is built around the Energy-10 software package v. 1.6 that provides extensive energy analysis for small buildings and preliminary analysis for buildings greater than 10,000 SF. \$275 includes lunch, the Energy-10 software package, and a certification of completion. NC Solar Center at 919/515-3480.
- March 11, 2003 FREE Half day Energy efficiency workshop**  
targets school facilities managers and administrators at the NC Arboretum contact: Matt Siegel 232-5080
- March 13, 2003 FREE Full day Energy Education workshop**  
targeting teachers at the Arboretum contact: Matt Siegel 232-5080
- March 21: North Carolina Sustainability Forum, McKimmon Center, Raleigh, NC**  
Hosted by the National Association of Environmental Professionals Sustainable Development Working Group, and cosponsored by NCSEA, the goal of the forum is to explore the breakthroughs and hurdles with regard to sustainable energy and water use in North Carolina. Top officials and experts from the NC legislature, academia, nonprofit sector and state government will express their experiences in shaping water and energy policy with respect to sustainability. contact NCSEA at 919/832-7601 [ncsea@mindspring.com](mailto:ncsea@mindspring.com).
- March 27 & 28 Stormwater BMP Training**  
Sponsored by North Carolina State University at 9:00 AM at Wilson Agricultural Center in Wilson, NC. .
- March 30 - April 1, 2003 - National Green Building Conference**  
Marriott Waterfront Baltimore Maryland [NAHB Research Center | Conferences and Seminars | National Green Building Conference](http://www.nahbrc.org/) <http://www.nahbrc.org/>
- April 15, 2003 Stormwater Wetland & Bio-retention Design**  
Sponsored by North Carolina State University at 9:00 AM at Caldwell County Library @ Lenoir, NC.
- April 22, 2003 WNCGBC Public Forum - Native Landscaping**  
5:00 – 8:00 – Lord Auditorium. E-mail [robin@rowhouse-architects.com](mailto:robin@rowhouse-architects.com) for info.
- May 1, 2003 Conservation easement workshop**  
located at the Arboretum. More info to come..
- May 23-24: Designing and Building a Solar Home, Asheville, NC**  
This workshop is geared toward residential building professionals, although those planning to build a solar home are welcome to attend. This workshop usually fills up quickly, so register early! There is a 10 percent discount for couples and multiple registrations from the same organization. For more information call the NC Solar Center at 919/515-3480

If you have an event to add to the WNCGBC Calendar, please contact [robin@rowhouse-architects.com](mailto:robin@rowhouse-architects.com)  printed on recycled paper

UPCOMING EVENTS



# BP & Chevron Texaco Announce Start-up of Dutch Windfarm

3rd December 2002, Rotterdam: BP and ChevronTexaco today announced the full commercial start-up of their new, 22.5 megawatt wind farm project in The Netherlands and the sale of green electricity into the Dutch national power grid.

The \$23 million project, located at the companies' jointly owned Nerefco oil refinery near Rotterdam, generates sufficient electricity for approximately 20,000 Dutch households. Within Europe it is the first large scale wind project on a brownfield refinery site and will displace 20,000 tonnes of greenhouse gas (carbon dioxide) emissions each year.

Speaking at the opening ceremony today John Mogford, BP's group vice president, Gas, Power and Renewables, said: "This project is part of BP's commitment to provide cleaner, lower carbon energy, contribute to lower emissions and add value to our existing operations. It demonstrates again that good business projects can also protect the environment"

Frank Maggio, Regional Vice President, ChevronTexaco Worldwide Power and Gasification added: "The Nerefco wind farm is an excellent example of companies working in partnership to deliver a clean energy project that has been successfully developed to the highest safety and environmental standards."

Xavier Bontemps, Nerefco refinery manager, said the new wind project represented an innovative use of brownfield land: "Placing the project within our refinery optimises the use of our assets, minimises any visual or noise impact on the surrounding area and helps The Netherlands achieve its environmental targets."

The wind project consists of nine, highly efficient Nordex turbines, each 120 meters tall and with a generating capacity of 2.5MW.

For further information, contact:

BP press office: Ronnie Chappell, Tel +44 20 7496 4324

BP Netherlands: Jacoline Poldervaart, Tel +31 10 417 5372

ChevronTexaco press office: Jane Wharton, Tel +44 207 719 4459

committees continued from page 2

## Membership

Claudia Cady

Chair

Boone Guyton

David Brannon

Cindy Meehan Patton

## Website

Marcus Barksdale

Chair

Issac Savage

John Senechal

## Forum

Nancy

Hodges

Chair

David Brannon

Issac Savage

..... *continued story from page 2*

model may be a good idea since people often use fuel burning appliances for back up heat if the power goes out. Many electric models have batteries for back up power. Select an alarm with a test feature and test it twice a year when you test your smoke detector.

- Be aware of the symptoms of carbon monoxide exposure, which can include headache, dizziness, weakness, coughing, and watery eyes. Carbon monoxide can also cause sleepiness, nausea, vomiting, confusion, and disorientation. Loss of consciousness and death can occur at very high levels. While carbon monoxide is odorless, when present at high levels, other fuel combustion pollutants may be present as well and a fuel burning smell can sometimes be detected. Low levels of carbon monoxide can lead to fatigue and increased chest pain in people with heart disease. Since CO is odorless and many symptoms resemble the flu, allergies, and other illnesses, it is possible for an entire family to be unaware that they are experiencing the affects of CO exposure.

If your CO alarm is activated, turn off the fuel burning appliances, open some windows, and leave the building. Your local fire department can determine if elevated CO levels are present. A qualified professional can repair or assess problems with fuel burning appliances.

If you think that CO is affecting your health, see your doctor right away and be sure to let them know that you may have been exposed to CO. Your doctor can do blood testing to determine if CO is affecting your health.

For more information, see the following EPA report entitled "What You Should Know about Combustion Appliances and Indoor Air Pollution" at <http://www.epa.gov/iaq/pubs/combust.html>.

# Strategic Plan for 2003

by Boone Guyton



The WNC Green Building Council met at Bobbi Tousey's residence for an afternoon to work out our "Strategic Plan" or our goals and means to achieve those goals over the next year. The Tousey residence is an active /passive solar home recently renovated with John Senechal (Bald Mountain Homes) and included recycled, salvaged and sustainably harvested wood. The beautiful woodwork went along with an incredible long-range view of the mountains

Our goal was to renew our focus and clarify our priorities within our mission to "promote environmentally sustainable and health conscious building practices through community education." Discussing what we had done over the last 3 years that had worked and what needed work, evolved our goals. There was a clear consensus that we wanted to produce a second edition of the Directory for which we received an environmental award from the Smart Growth Partners of WNC as well as positive feedback from many individuals. The continuation and improvement of the bimonthly forums on a variety of green building issues was also clear and led to the formation of the forum committee to see that happen in a more organized way. The newsletter was a third obvious success that helps keep all the members in touch with what is going on within the council and includes articles of related interest as well as having a calendar of related events by the council and other groups in the area. This will be continued to be a benefit of membership in the council but will change to a quarterly schedule with larger content. The Green Building Hotline, that is supported by Waste Reduction Partners through Land of Sky and staffed by Matt Siegle, was also recognized as a valuable tool for the community that allowed for a consistent source of answers to specific questions. It also helps the council to find new people and businesses that contribute to a more sustainable building industry.

We discussed our role as the local chapter of the Million Solar Roof Initiative for the region. We discussed the immediate goal of the upcoming forum on solar applications and a green building tour that will coincide with the national tour in October. We talked about a past goal of developing a green building program but decided to first participate in the Green Building Task Force organized through the NC Solar Center that will be meeting several times during the year to develop guidelines that would be useful through out the state. Once that is complete we will review it with our local environmental factors considered.

Funding was discussed with our past attempts as well as our most likely prospects. We formed a fundraising committee, which Bobbi Tousey agreed to continue to chair. Her experience in grant writing is a well-appreciated skill and others on the committee presented ideas for benefit concerts and sponsorships for forums, newsletters and the website

A final goal presented was to build a demonstration home. This excited the group as something tangible that would do a lot to promote green building by having an example that people could learn from through direct experience. Though it at first seemed like a long-term goal the excitement of it prompted several possibilities to explore. That exploration is moving forward with Waste Reduction Partners and Land of Sky Regional Council to try and find possible partner among affordable housing organizations.

We filled all the committee positions and concluded. The Council has done an impressive amount with mainly volunteer efforts over the last 3 years and this strategic planning meeting showed continued support for a wide range of projects.

The Strategic Plan meeting was facilitated by Bobbi Tousey and was precluded by a great potluck by everyone.



## PUBLIC FORUM UPDATES

Our next public forum will deal with the MSRI. The forum will be held on February 18, 2002 at the Forum in Pack Square. A snack reception will be held from 5:00 - 5:30. The presentations will run from 5:30 to approximately 7:00!!! We hope to see you !!!