

Growing with Green

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

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WNCGBC Announces Local Partnership with The Million Solar Roofs Initiative

by Traci Kearns

What is the Million Solar Roofs Initiative? On June 26, 1997, in a speech before the United Nations, President Clinton announced the creation of the Million Solar Roofs Initiative

(MSRI), an effort to combat global climate change by installing one million solar systems on America's rooftops by 2010. Just two years following the announcement of this new initiative, over 40 communities and states had joined as Partners in the MSRI. Together, their initial pledges totaled over 950,000 solar energy systems. In 1999, North Carolina became a State Partner in the MSRI, providing an avenue for communities throughout the state to participate in the program. North Carolina has established a goal of obtaining 20% of its energy from renewable resources by 2010. The key to reaching this goal and obtaining a cleaner environment, a reduction in global warming, and enhanced economic development will be the actions that are taken at a local level. The participating Local Partners within North Carolina are Watauga and Guilford counties, the town of Chapel Hill, and most recently Western North Carolina. With their similar goals, The Million Solar Roofs and The WNC Green Building Council (WNCGBC) are natural partners in the drive for a more sustainable energy future. The WNCGBC has committed to lead and coordinate solar outreach efforts within a four county region, including Buncombe, Haywood, Henderson, and Madison counties. Through this Local Partnership, the Green Building Council has committed Western North Carolina to a goal of 500 new solar installations by the year 2010.

Local Goals and Action Plan: The aim of our the WNC Million Solar Roofs Initiative is to create a model program to spread awareness and develop cooperation for a regional approach to renewable energy and appropriate economic development. To understand what strategies will be most compatible with the conditions

in our region, we first need to identify the human and environmental parameters, such as the existing public awareness of renewable energy. A key aspect of this is to compile a database of existing local solar systems, involve those with expertise in our cooperative efforts, then be able to track the efforts/results on a continuing basis. The creation/maintenance of a website which will function as an educational tool and meeting ground for those wishing to discuss projects and learn more about solar applications from others in the region is one of the primary short term goals of the Initiative. This site will provide:


- Access to the MSRI local calendar of events, information on local economic incentives, as well as solar resources
- Statistics derived from a database of all systems registered in the WNC MSRI region, as well as a registration form for new installations.
- A solar bulletin board for discussing solar projects, sharing personal solar success stories, announcing local workshops, etc.

"... 500 new solar installations by the year 2010."

Another crucial short-term goal of our local initiative is to inform the local government of MSRI and the need for cooperation between pertinent departments and those seeking to implement solar.

Providing presentation seminars and solar tours for the public and related professional fields will serve as a primary form of education. We hope you will join us in this cooperative movement!

Traci Kearns is the co-chairman of the Million Solar Roofs Committee, and a board member of the council.

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Steering Committee

Cindy Meehan-Patton,
President

Duncan McPherson,
Vice-President

Boone Guyton,
Treasurer

Robin Raines Elliott,
Secretary

Terry Albrecht,
Member at Large

David Hill, Member
at Large

Any questions or comments about the newsletter should be sent to rrrains@mindspring.com.

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Officers & Committees Elected at Annual Board Meeting

by Robin Raines Elliott



WNCGBC Members

Terry Albrecht
James Anthony
Peter Boggs
HM Boniske
Emily Boyd
Kitty Brown
Claudia Cady
Chuck Campbell
Robin Raines Elliott
Shane Elliott
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Laurie Miller
Fred E. Reidinger
Isaac Savage
John Senechal
Travis Somerville
Bobbi Tousey
David Tuch
Larry Weissman

On January 8, 2002, new officers and committee chairs were elected.

Officers are as follows:
Cindy Meehan-Patton, *chair*; Duncan McPherson, *vice-chair*; Robin Raines Elliott, *secretary*;

Boone Guyton, *treasurer*; Terry Albrecht & David Hill, *members at large*; Shane Elliott, *chairman of the board*.

Committee heads are as follows:

The Directory Committee – Duncan McPherson, *chair w/*

Aaron Johnstone as *chair* of **Distribution**; **The Website committee** – Isaac Savage, *chair*; **The Education committee** – Boone Guyton, *chair*; **The Public Relations committee**, Shane and Robin Elliott, *co-chairs*; **The Fundraising committee** - Bobbi Tousey, *chair*; **The Million Solar Roofs Initiative committee** – Traci Kearns and Isaac Savage, *co-chairs*. **The Membership Committee** – Claudia Cady, *chair*.

“All members are encouraged to join a committee, all non-members are encouraged to join the council!”

If you are interested in serving on any of these committees, please contact Robin Raines Elliott @ robin@rowhouse-architects.com. All members are encouraged to join a committee, and all non-members are encouraged to join the council!

Green Building Directory Finished

by Boone Guyton

The WNC Green Building Council has finished producing the first issue of a regional directory to help in making the local building industry more sustainable. It includes educational articles about different aspects of sustainable building practices as well as listings of people and businesses that provide related services or products. This has been the main focus of the council for several months and is the result of a lot of time and hard work by many members as well as contributions from non members. Special acknowledgment goes to Larry Weisman



and Duncan McPherson who were responsible for the lay out and much of the final preparations. This publication is a major effort at raising the awareness of environmental building practices in our area with the hope of increasing the use of these methods and products to improve the quality of our built spaces and to decrease their impact on the environment. It is funded by the members, advertisers and several generous sponsors that are acknowledged throughout the directory.



Western North Carolina Million Solar Roofs Initiative

Hopes High for Grant Funding Green Building Program

by Shane Elliott

In February of 2002 the Western North Carolina Green Building Council submitted a proposal to the State Department of Energy of North Carolina in order to receive funding for the development of a comprehensive regional Green Building Program. The proposal targets the first of a two-phase approach leading to the implementation of green building practices in Western North Carolina. A brief outline of these phases is as follows:

1. The establishment of a residential green building certification program, including the development of guidelines and extensive public awareness in the Western North Carolina area.
2. Implementation of the High Performance Building Guidelines for commercial construction in Western North Carolina, integrated with training programs being implemented by the North Carolina Solar Center.

When completed, the Green Building Program will have established green building guidelines for residential construction, a broad based educational program will be underway, and at least one developer will be on board to undertake a pilot program. With these accomplishments, the Western North Carolina Green Building Council will become a stronger, more diverse organization with staff and volunteers to carry out its long term objectives.

The past two decades have seen a growing awareness of the environmental impacts of construction, as well as the effects that buildings have on their occupants. Concerns about inefficient energy consumption, depletion of natural resources, indoor and outdoor air quality, and the toxicity of building materials have all become

part of the national environmental movement. Through its Green Building Program, the WNCGBC will be able to connect to a greater universal environmental awareness, while at the same time focusing at the local and regional scale.

The following are some of the Objectives of the Green Building Program:

1. Development of "green" guidelines and a certification program for residential homes in Western North Carolina. Homes would be rated in five categories: energy efficiency, water efficiency, materials efficiency, health and safety, and community. The guidelines would be closely coordinated with the work that is currently underway at the North Carolina Solar Center.
2. Identification of residential developers willing to incorporate Green Building Program guidelines into their "spec" houses. They will be provided with information on how to integrate green practices into their designs as efficiently as possible.
3. Updating and expansion of current WNC green Building Directory.
4. Development and implementation of a public awareness educational program throughout the region.
5. Establishment of an internship program with area colleges to encourage interest in green building professions.
6. Development of partnerships with existing programs and organizations in WNC and the state to futher the implementation of green building practices in both residential and institutional buildings in Western North Carolina. Examples include the North Carolina Solar Center, Land of Sky Regional Council, The Western North Carolina Alliance, and local governments.

"the Western North Carolina Green Building Council will become a stronger, more diverse organization."

ELSEWHERE IN THE NEWS. . .

FLORIDA COMPANY DEVELOPING FUEL CELLS FOR RESIDENTIAL MARKET

Apollo Energy Systems in Fort Lauderdale, Florida, is developing a new fuel cell system for powering homes and hopes to have prototypes for testing by year's end. Apollo's fuel cell uses an alkaline electrolyte, which boasts several advantages over the proton exchange membrane (PEM) systems. Unlike PEM devices, alkaline fuel cells require neither an air compressor for supplying air to the fuel cell stack, nor a humidifier to ensure proper moisture content in the membrane. Because they require less of the platinum catalyst that most fuel cells use in their electrodes, alkaline fuel cells also have the potential of being produced at lower cost. And alkaline fuel cells operate at a higher efficiency (50 to 60 percent) than PEM devices (35 to 40 percent). Once they are in mass production, Apollo's fuel cells are expected to cost \$300 to \$350 per kW, with complete power plants selling for anywhere from \$5,000 to \$15,000. The company hopes to enter the residential market through utilities, which would distribute and maintain the systems for residential customers. Prototypes will range in size from 3 kW to 25 kW. More: <http://www.electrcauto.com>.

VANCOUVER THINK TANK NOTABLE FOR ITS SUSTAINABLE DESIGN The Liu Centre for the Study of Global Issues, a 1,750-square-meter campus building at the University of British Columbia, Vancouver, seeks to establish a new benchmark for sustainable design at UBC. To minimize impact on UBC's strained campus infrastructure, the Liu Centre was required to be 50 percent more energy efficient than the guidelines in the Model National Energy Code for Buildings. The University is so concerned about this that its Land and Building Services department has established the position of Director of Sustainability, currently occupied by architect Freda Pagani. The Liu Centre, which was designed by Architecture Planning Architecture Interiors Inc. in collaboration with Arthur Erickson, makes extensive use of salvaged materials from demolished buildings both on and off campus, including glulam beams and structural wood decking. The project includes such staples of green building as operable windows, high performance low-E argon-filled glazing and free span structure for flexibility of office layouts. It also provides covered bicycle stalls and showers to facilitate an alternative to car commuting. Building occupants are provided with a "users' manual" to familiarize them with the building's approach to creating a comfortable work environment. Canadian Architect, Jan 2002, p 22, by Marco Polo. [More: <http://www.liucentre.ubc.ca/liu/about/facilities.htm>]

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.



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