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## What's in Your Bookmark? Green Building Information on the Web

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# What's in Your Bookmark? Green Building Information on the Web

#### Introduction

Only a few years ago one would know it was time to clean the computer keyboard if he or she saw "www" on the screen. In that earlier time one would ask: "Did I spill soda or did I drip jelly on the upper left keys?" Today sloppiness is no longer immediately indicated; instead "www" foretells the beginning of another exploration of the millions of interconnected computer libraries that make up the World Wide Web.

Many of the major computer libraries are now familiar to the average computer user. Yahoo, Lycos, Excite, and Infoseek are just a few of the information retrieval resource centers that serve as access points for millions of web surfers. In this paper we will point to and discuss some of the web sites that may have particular interest to the Affordable Comfort community.

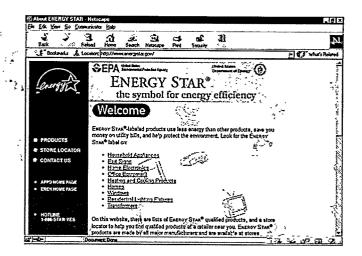
Of course we can not list every web site that deals with energy efficiency, sustainable design, diagnostics, weatherization, HVAC, or home energy ratings. Instead we will concentrate on a few topic areas and list several of the web sites that we have found useful. Along the way we will display several of the most frequently used web sites for general information on sustainable buildings.

Hoping that most of the readers are familiar with the Web, we will not devote scarce space to some of the fundamentals of the Web. We trust that the reader knows what a brower and an ISP are. (Or if they don't, we hope they know how to use the CD-ROMs that AOL or Mr. Gates sends them every few months.) Besides, people can use the web without knowing what "URL" stands for.

In listing web sites that are of special interest to the Affordable Comfort community, we will try to categorize sites in six major areas: Green Building Product Directories, Software Tools on the Web, Good Places for Learning, Health and Indoor Environment Information, Important Discussion Groups and E-mail Lists, and Sites of Sites. Since we can not help but leave out a great deal, we invite the reader to contact us for lists of sites that we could not include. We also welcome information on web sites that we have yet to discover.

## Green Building Product Directories

Green building products seem a good place to begin. Leaving arguments over what constitutes "green"we point to five sites where surfers can find information about a variety of products that may have valued sustainable characteristics. These are:



#### Energy Star Products

EPA and DOE have put together this handy web site that offers information on products that meet the Energy Star criteria. The site has a useful store locator based on 5-digit zip code. It also includes an informative FAQ (frequently asked questions) section. Specific models of appliances can be researched to learn if they carry the Energy Star label.

(http://www.energystar.gov)

## Energy Federation, Inc.

The Energy Federation maintains an excellent green products catalog on-line. The catalog is easy to surf through, even though there is no search capability. Ordering products requires fax, phone, or mail. (http://www.efi.org)

Green Building Resource Guide & Exchange

This site contains a salvaged building material exchange that can be accessed on-line. One can offer salvaged material for sale or purchase from others. The site also sells a CD-ROM or paper copy

of a database with over 600 green building products and materials. The database is not on-line, but one can order via fax or mail.

(http://www.greenguide.com)

Green Building Materials Virtual Sample Room
The Canda Mortgage and Housing Corporation with
a few partners has created a searchable green
products database. It is easy to use and third-party
certified. The site is mirrored in French if you
parlez yous.

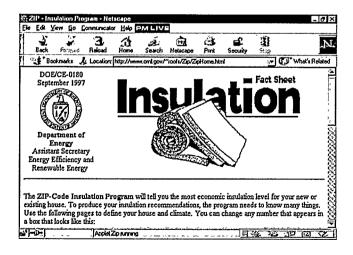
(http://www.sampleroom.buygreen.com)

Advanced Technologies for Commercial Buildings
This site offers a database as assistance to building designers and building managers. It includes a guide to more than 60 environmentally-appropriate technologies. Though the focus is commercial/institutional, much can be found of interest to designers and managers of residential buildings. The site uses a menu system rather than a searchable database.

(http://www.advancedbuildings.org)

## Software Tools on the Web

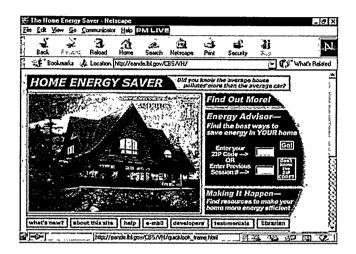
The personal computer let us compute independently. We were no longer dependent on big mainframes. But with that independence each of us needed our own copy of the software we used. The web has given us back the ability to use software tools jointly. Here are three sites with tools for residential building analysis:



Oak Ridge's Building Technology Center

The national labs have been placing more material on the web in recent months, and they have lots more to make available on-line. For those looking for content, this Oak Ridge site is a good place to start. There are Acrobat pdf versions of hefty research reports and design assistance documents. You will find a link marked "Envelope Systems" that takes you to a set of handbooks, fact sheets, and interactive tools, including the Insulation guide shown above.

(http://www.ornl.gov/ORNL/BTC/)



LBL's Center for Building Science

One can not help but enjoy working with LBL's Home Energy Saver. It is the first Internet-based energy use software tool for residential buildings. It is easy to use and visually interesting. The Center's site also offers information one various technologies (lighting, windows, etc.) that the lab is working on. (http://eande.lbl.gov/CBS/)

#### DOE's Tools Inventory

When DOE's EREN web site claims to be the comprehensive resource for energy efficiency and renewable energy information, it is hard to disagree. At last count the site has information on 136 software tools for building analysis. These range across the spectrum of simple web-based calculators to DOE-2.

(http://www.eren.doe.gov/buildings/tools-directory/)

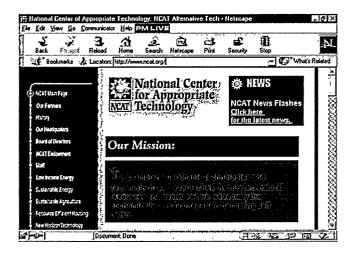
#### **Good Places for Learning**

It seems as though web afficionados have cried for content since the first electron. Indeed, much of the web is cluttered with cute pictures and teaser ads. But those looking for content on energy efficient buildings might start with the following:

## Weatherization Training Center

The Weatherization Training Center of the Pennsylvannia College of Technology has a great site for teaching some fundamental building science principles. This site uses animated graphics to present topics like attic condensation, backdrafting, and pressure pan testing.

(http://www.pct.edu/wtc/wtc.htm)



## National Center for Appropriate Technology

NCAT has been working with HUD for several years to move performance contracting and other energy efficiency financing methods forward at public housing authorities and in HUD assisted housing. They have assembled a nice set of case studies on their web site. They also present clear information on the various HUD incentives. (http://www.ncat.org/reh/)

## Home Energy Online

Few publications serve the Affordable Comfort community nearly as well as *Home Energy Magazine*, and no magazine known to us appears willing to place as much quality content on the web free of charge. You will find articles from back issues and the great graphics that make the magazine such a joy to read.

(http://www.homeenergy.org)

#### Health and Indoor Environment Information

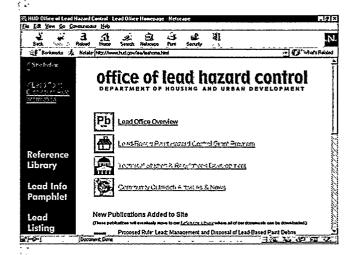
Health and indoor environment have increased in importance to the Affordable Comfort community as it connects with our work in new and unusual ways. Here we scratch the surface of the many web pages out there on this topic.

#### ALA Health House

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The American Lung Association (ALA) has spearheaded an effort to educate builders and homeowners about what constitutes a healthy house. Through their Minnesota chapter, the ALA has developed demonstration homes around the country. They also have created an informative web site that allows the surfer to learn about the features of healthy homes as well as indoor pollutants of various descriptions.

(http://www.healthhouse.org)



HUD Office of Lead Hazard Control

The Office of Lead Hazard Control has put together a comprehensive and extremely informative web site. The site includes a reference library with documents in both HTML and Acrobat pdf files. Grant programs are identified and pamphlets for residents are available in various formats in both English and Spanish.

(http://www.hud.gov/health.html)

#### Consumer Products Safety Commission

This site includes basic information on many hazards residents may face. It includes information on such issues as IAQ, electrical safety, CO poisoning, and gas-fired water heaters. The site provides documents in both English and Spanish.

(http://www.cpsc.gov/consumer.html)

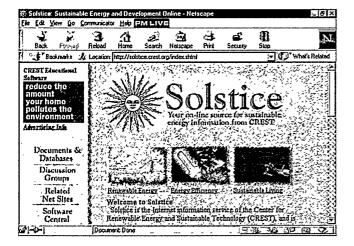
#### About Your House

The Canada Mortgage and Housing Corporation has assembled a wonderful library of documents on health issues in homes. All reports are in Acrobat pdf files that can be downloaded and printed. The

material is in English and French. (http://www.cmhc-schl.gc.ca/Publications/AboutYourHouse/index.html)

## **Important Discussion Groups and E-mail Lists**

Where do you go if you have a burning question? Or where do you take a provocative new insight? You can take if to millions around the world via discussion groups. A few groups are listed below. (We list web sites where you can get more information or access to the group.)



#### Green Buildings

The Center for Renewable Energy and Sustainable Technology (CREST) provides a fantastic service by maintaining a list of discussion groups on many topics. Most can be joined from the CREST web site. One of the discussion groups that CREST actually hosts involves green design and construction. A searchable inventory of past topics is also available.

(http://solstice.crest.org/discuss.shtml)

## Energy Efficient Buildings

This discussion group is maintained by the Energy Efficient Building Association and serves as a primer forum for energy efficient design and building science. The discussion moves from moisture and IAQ studies to innovative technology. One can search past topics from the CREST site. (http://solstice.crest.org/discuss.shtml)

#### Indoor Air Quality

This list discusses issues and concerns regarding indoor pollution and contamination along with

molds, combustion by-products, VOCs, and other not-so-nice stuff. The list has over 600 subscribers consisting of IAQ consultants, environmental scientists, and researchers in toxicology, testing and analysis.

(go to http://www.onelist.com and search "iaq")

#### **EcoBalance**

This disussion group is sponsored by the Eco-village Information Service, which is dedicated to the creation and maintenance of self-sufficient, sustainable communities. The lists participants are actively working to create ecovillages around the world.

(http://oceania.ecovillages.org/index res.html)

## Community Research Network

The Loka Institute has pioneered the development of community research organizations in the U.S. These organizations connect the university scholars to the local needs of low-income communities. The discussion group provides a link between the various community researchers, helping them share problems and solutions.

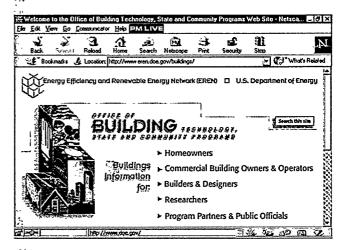
(http://www.loka.org/crn/crnlist.htm)

## GreenClips

This list does not allow discussion, but it provides excellent summaries of news on sustainable building design and renewable technologies. Relevant actions by government and business also are covered. (http://solstice.crest.org/discuss.shtml)

#### Sites of Sites

We offer two sites where one can find many other web sites of interest to the Affordable Comfort community. These are great places for people to



start exploring on their own. But take care: exploring these site can become addictive.

Energy Efficiency and Renewable Energy Network DOE has assembled a vast array of site in two files. First check out the DOE related sites on the page listed below. This includes DOE programs, offices, and laboratories. Then scroll down to the bottom of the page and find the hyperlink labelled "Related sites". You will find a second page filled with links to the best web sites of interest on the Internet. (http://www.eren.doe.gov/EE/buildings.html)

#### Solstice

We have saved the best for last. This is the Alice's Restaurant of sites of sites. Surf over to this site and choose from Renewable Energy, Energy Efficiency, or Sustainable Living. You will find anything you want.

(http://solstice.crest.org)

### **Giving Something Back**

We have made the point that the Internet is something like a library. Surfing to a new web site is like taking a book off the shelf and opening its cover. In place of a single card catalog, the Internet has multiple reference sites - like Yahoo, Netcenter, or Lycos - that categorize the known web pages, and the two sites of sites above are catalogs of sustainable building sites.

But the Internet is also different from a library in that you can ask questions or talk back as in the discussion groups or e-mail lists.

More fundamentally it is different from a library in that you can add to the shelves. Even if you are intimidated by the prospect of writing a book, you should not fear developing your own web page. For as little as \$200, you can buy software, rent space from an ISP (internet service provider), and create a few pages that tell about your projects, skills, and experiences. (You may want to spend a little more to hire the talents of a good graphic artists. Remember what they say about first impressions.)

That is to say, you should give something back to the pool of information. You would not come to the Affordable Comfort conference just to listen, would you? At the conference you enter into dialogues that offer your valuable insights to others as their presentations and conversations enrich you.

So after you have explored all the site

mentioned above, written profound e-mails to discussion groups, and surfed through sites of sites, its time to give back by adding real information on successful projects and good energy measures that you have developed. Then this library in virtual space will grow beyond any walls that could hold a new Alexandria.

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