

PRACTICAL "GREENING" OPTIONS WHEN REMODELING

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This 'best practices' paper does not seek to lay any theological foundation; we'll leave that up to others. This paper first identifies websites that will help you and your board to consider the kind of "greening" you can do. The field is changing very rapidly, and most printed material or specific lists of brands and products would be outdated in 6 months.

The main body of this document annotates websites that you will find very helpful in coming to your own decisions about greening. At the end of the annotations you will find general suggestions and things worth considering, on a more practical and simpler level.

It also must be said at the outset that going green will not necessarily cost less initially, and sometimes does not even pay for itself in the long run. Going green is not simply a financial issue. You, as the stewards of both the campus ministry facilities and the benevolence dollars you receive, must decide where and why you make the decisions you do when considering more ecologically friendly remodeling, building, and/or consumer choices.

One consideration, of course, is when to make changes. Some could be made now; others can wait until something needs replacing. The more extensive changes should wait until you are doing a larger project. One suggestion I recently learned uses the matrix of 2 X 2 X 2: make a list of changes you can make in 2 weeks; another list of those you can make in 2 months; and a third of those you can do in 2 years. As you complete an item on one of the sections, replace with another or move one up a notch.

There are almost an infinite range of possibilities when considering what you can do, from easily changing to a CFL light bulb the next time the desk lamp goes out, to more extensive changes like installing a living roof of plants, complete with drainage and rain collection system. Then you can always add on solar panels, which can offer heat exchange or produce electricity to use and perhaps even sell back to the power company. Choices are also not always clear. What seems an easy choice at first may be complicated by a larger carbon footprint in manufacturing or waste disposal.

For example, the CFL light bulb does save a significant amount of electricity, gives off less heat, and lasts much longer, meaning less waste. However, there is a small amount of mercury in each bulb, and broken bulbs need careful attention in clean-up and disposal. There is also the issue of adding mercury to the waste lands. The good news is that on the horizon are LED light bulbs that use even less energy than the CFLs, and less heat, while not having the mercury problem. However, although they are expensive, we have personally used them in hard to reach fixtures.

On another extreme there is even discussion as to whether artificial lawns or grass is a better ecological choice: manufacturing footprint vis-à-vis the fertilizer and water used to maintain a “natural” lawn. Yech! Who would have thought!!!

The discussions can be endless.

Website Resources

As one might guess there are myriad of websites dedicated to this issue. Some focus on local issues and others take a more global view. I cannot list them all, but here are some of the most helpful websites I found:

First, two sites that are specifically ELCA in focus:

www.Webofcreation.org

David Rhoads, New Testament professor at Lutheran School of Theology in Chicago spearheads this excellent website. It covers theological as well as practical issues. It has developed its own manual and resources, which include worship materials and advocacy. In its own words:

The **Web of Creation** was established to foster the movement for personal and social transformation to a just and sustainable world from religious perspectives. To that end, the information at this site will:

- connect you with ideas, resources and strategies for doing eco-justice
- inform, inspire, encourage, educate you about eco-justice
- support you in your efforts to live, work and pray in ways that promote eco-justice

The Web of Creation has also been developed to provide information and connections for theology students interested in environmental ministry.

www.lutheransrestoringcreation.org

This is a spin-off from “web of creation” and relatively new. It is directed to and for ELCA expressions. It contains sections specifically for synods, congregations, seminaries, colleges/universities and outdoor ministries. There will be a new section launched shortly titled: Lutheran Campus Ministries and feature some of our sites and what they are doing in this area. The site is interactive and invitational in that it welcomes posts from these entities. So folks, get your info out there! This site is one I hope gains in use and popularity. Pass it along.

Other sites:

www.BuildingGreen.com

This is an independent organization that seeks to research and influence the building industry toward more responsible building materials and practices. It provides both print

and electronic resources to help you navigate the waters of environmental building. The website is extensive but easy to navigate, offering short articles and studies on ecological building choices. It is well worth your time to explore this site.

On this site you will find a copy of an excellent article written by Alex Wilson entitled “Building Materials: What makes a Product Green?” It is well worth the time to search it out and download it. Although the latest revision is 2006, it still contains very helpful information. In this article Mr. Wilson identifies five major categories of green products:

- 1) Products made with salvaged, recycled, or agricultural waste content;
- 2) Products that conserve natural resources;
- 3) Products that avoid toxic or other emissions;
- 4) Products that save energy or water; and
- 5) Products that contribute to a safe, healthy built environment.

Also, you will appreciate his discussion on some of the challenges, and ways to think about green building materials and how to begin to assess their friendliness to the environment.

www.Nccecojustice.org

This website comes from the National Council of Churches USA. What is specifically helpful is the “Building a Firm Foundation: A Creation Friendly Building Guide for Churches”. Of course one must translate it to apply to our campus ministry sites. What I found really helpful were the sidebars within the larger document. Some identified other resources and websites; while others offered quick checklists that help with carrying out one’s stewardship of ecology.

Topics include:

- 1) Why Go Green?
- 2) Introduction to the LEED certification program (Leadership in Energy and Environmental Design; discussed elsewhere in this document)
- 3) Energy Issues
- 4) Water Issues

The last pages of their guide offer their own annotations of various websites and other resources.

www.usgbc.org

US Green Building Council is a voluntary organization that has developed the Leadership in Energy and Environmental Design (LEED) program. This is a rating system that identifies different levels of achievement in environmental building and design. There are various fees paid to have your building receive the certification. However, the information on the web pages are most helpful and can be used as a guide to help you make choices.

www.thegbi.org

This is another certification program like LEED, a not-for-profit organization whose mission is to accelerate the adoption of building practices that result in energy-efficient, healthier and environmentally sustainable buildings by promoting credible and practical green building approaches for residential and commercial construction.

If you are thinking of having some certification, the builder you are working with may find this helpful. There is a cost.

Three Environmental Protection Agency sites

www.energystar.gov

www.energystar.gov/congregations

www.epa.gov/greenbuilding

These sites from our government agency, the EPA. These are well planned and very helpful sites and a good starting point. There are particularly helpful pages on “water sense” and a very informative FAQ found at www.epa.gov/greenbuilding/watersense .

The EnergyStar pages give a good list of appliances, heating/cooling/insulation, roofs, windows, office equipment and lighting suggestions.

www.theregenerationproject.org

This is an interfaith ministry devoted to deepening the connection between ecology and faith. Their goal is to help people of faith recognize and fulfill their responsibility for the stewardship of creation.

Specifically, the Interfaith Power and Light campaign is mobilizing a national religious response to global warming while promoting renewable energy, energy efficiency and conservation.

The site also contains a great carbon footprint calculator for both congregations (read: campus ministry) and households.

<http://interfaithpowerandlight.org/>

Interfaith Power and Light is mobilizing a religious response to global warming in congregations through the promotion of renewable energy, energy efficiency, and conservation. It has affiliates in most states. You can take a household or facility quiz to calculate your footprint. One of our campus ministry sites received funds from them for an energy audit.

<http://www.energyfederation.org/consumer/default.php>

Related to Interfaith Power and Light. This site will lead you to products that are energy saving and environmentally friendly.

www.thegreenguide.com

Sponsored by National Geographic Magazine. A very practical, helpful site, with lots to navigate. Just start clicking and the possibilities are endless from quizzes, to tips, to buying guides. Very helpful for day to day opportunities to “Go Green”.

The site also provides a good number of short videos about green products and practices, from cleaning products to changes one can make with cleaning, laundry, insulation, and other home areas.

www.greenseal.org

A third party organization that gives their approval if products meets certain standards. One can look up a variety of products to see which brands have earned that approval. It will also list retailers, manufacturers and wholesalers that deal in “green” products.

Book

Green Building & Remodeling for Dummies by Eric Corey Freed 2008

Subtitled, “Your hands-on practical guide to the materials and construction methods of green building.”

Anytime I have seen anything in the “Dummies” series I find myself very skeptical. I always wonder just how much the authors, editors, and publishers have “dumbed” down the information. And will it go into any depth of the issues?

Surprisingly this brand new book is very well written and organized. Its author is a recognized expert in the field of organic architecture. He teaches in the Sustainable Design program at University of CA, Berkeley.

Mr. Freed examines the topic in five parts:

- I. The Need for Green.
- II. Paying Attention to Material Matters (building and construction)
- III. Green Building Methods
- IV. Green Building Systems and Site Planning
- V. The Part of Tens (lists of myths, things to do, materials you can’t live without, and things to do in your home right now.)

There is even an appendix with a table of rebates, incentives, and grants for building green. Worth the effort! I would definitely use it as a go-to resource. It would be a great addition to the other resources if you are thinking of any kind of remodeling or building.

If I were to buy anyone book on this subject, this would be it, and I have! Make sure you get the newest edition.

Organizations

Co-op America www.greenamericatoday

Consider joining GreenAmerica. They publish a National Green Pages directory, Green America Quarterly, and a Guide to Fair Trade.

In the Green Pages directory any business that is listed has to meet certain standards. The directory has an especially helpful index by state and city. By no means is their list exhaustive, but it is an excellent place to start.

The Quarterly magazine contains helpful articles from the practical to the theoretical to advocacy. Their scope goes beyond domestic and national interests and considers issues on a global scale.

This organization is a strong advocate of Fair Trade. They even offer a free weekly online newsletter reporting on green economy and Fair Trade updates.

www.responsibleshopper.com is a great site, run by GreenAmerica (CoopAmerica.)

It's \$20 per year for membership, although I received free membership for a year when attending a GreenFestival. Check on-line for schedules and places.

<http://www.greenfestivals.org/>

Simple Changes to Consider

Below are some simple changes that one can consider in the near future. This list is not exhaustive, but may help you make decisions.

1. Given its drawbacks the CFL is still a better choice than incandescent, begin to change them now. Continue to watch for LED, even a better choice. Interesting formula: # of CFLs X 240 = pounds of carbon dioxide saved yearly; # of CFLs X \$44 = amount saved over the life of the CFL bulb.
2. LED lights are now coming down in price, and they last far longer than CFL, use even less energy, and come as dimmable. Immediately good for use in hard to reach fixtures.
3. The next time a toilet needs replacing, consider a low volume flush 1.6 gal. or a dual flush system as opposed to old style 4-8 gal. flush. Yes, even the flush buttons are labeled number one and two. If you really want to go green, you can buy a system that hooks into the sink drainage, and uses that waste water for flushing.
4. The next time you need a new water heater, seriously consider the tankless or point of service water heaters. They heat only the water to be used. Initially expensive, they will repay themselves over time, depending upon water usage. However, immediately you will notice a lowering of either gas or electricity usage and cost. Right now with a normal water heater, the electric element or a pilot

- light is always on, and the tank needs constant heating to keep the water at a given temperature, using energy. Consider how often you really use hot water. Tankless may be the way to go.
5. When replacing appliances, make sure products have an energy star rating. Rebates are showing up this year. It may be time to buy one.
 6. Using green cleaning products from laundry to dish soap to general cleanup. As you might wonder, and as my cynicism engaged, is everything touted as green, really environmentally friendly, but there really are many good cleaning products. Some have gone to purchasing homemade soap from local vendors for the washrooms and have replaced some cleaning products with simply water and vinegar.
 7. Visit a Green Expo if one comes near you.
 8. Don't forget to buy fair trade whenever possible.
 9. If you are repainting, consider low or no VOC paints. Not too long ago there was very little choice of colors. That has now changed. Two good suppliers are Air02, found at www.yolocolorhouse.com and Mythic http://ecosceneinc.com/default/reviews/home_garden/00581_zero_voc_mythic_paint_review.aspx They contain no VOC and no off-gassing of toxins.
 10. One of the new insulating materials is denim, yes recycled jeans!!
 11. Choose formaldehyde-free materials, especially in particleboard and plywood in cabinets and counter-tops. Counter-tops can be made from recycled materials like recycled glass and ceramic.
 12. Choose bamboo or natural linoleum for flooring.
 13. Install occupancy sensors for lights in rooms not used often, especially bathrooms. Or timers for other areas.
 14. Using water from sinks and laundry, "gray-water" systems are gaining popularity. "Gray-water" is then used primarily for landscaping and irrigation.

These are only starters. One can find a myriad of resources, suggestions, books, websites, and knowledgeable people. You may have some local expert help in faculty or particular academic programs. Check out if there are programs in environmental studies; building construction, mechanical engineering, landscaping. Also check out local community colleges, sometimes they are best for local resources as well.

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