

UFF-DA!

Useful Facts and Figures - Data for Affiliates!

October 2009

Greetings! Please share this information with your Board and staff and let us know what data is useful to you in your work. With your input, we will work together to gather information and compile it into a format that is most useful to you. Please feel free to ask us for data that you are most interested in. We look forward to and thank you for your feedback and suggestions.

Habitat Affiliates “Build It Green”

Recently, Habitat for Humanity of Minnesota announced the expansion of our Sustainable / Green Building Program. This is due in large part to a grant from the Home Depot Foundation and Habitat for Humanity International. The goal of the coming years’ work is to provide the training and resources necessary to have every one of the 120+ Habitat homes built annually achieve superior levels of efficiency in both energy and health. Take a look at what to expect from the next stage of our green initiative, and check out the effects of the last two years of work in sustainably affordable homes.

What the Sustainable Building Program means for Building It Green

Through this program, Habitat Minnesota will offer training, materials and equipment, partnership opportunities, and staff support intended to take affiliates to their next level of energy efficient construction.

The training component enlists a variety of delivery mechanisms: 1) One-on-One On-Site Trainings, 2) Affiliate Networking Meetings, 3) Mini-Conference Trainings, and 4) Statewide Conference Trainings. Training and networking opportunities will be tailored specifically to Habitat affiliates’ needs and practices, and will address both green new construction and green rehab.

Through this program, HFH-MN will help source the harder to find materials necessary to build sustainably, such as low-volatile organic compound (VOC) construction products and highly efficient ventilation equipment. We will also provide the technical equipment and assistance necessary to plan, test, and verify the performance of highly efficient Habitat homes. Tools include diagnostic equipment like the blower door and the infrared camera, assistance/coordination for Development Plan Sessions (a necessary step in building-standards programs such as Energy Star and Green Communities) guidebooks and specification sheets for building-standards programs, and more!

This grant has allowed HFH-MN to hire a staff person dedicated to serve affiliates needs as they continue and develop their sustainable building practices. Our Sustainable Building Specialist, Molly Berg, will help facilitate the resources offered by this program, and provide affiliates a high level of personalized support in their green efforts. Look for regular announcements and notices from Molly regarding the resources and opportunities available for affiliates.

We hope you are looking forward to the next level of our green initiative. Through this effort, and the continuing diligence of affiliates in building excellent homes, we will ensure that Habitat for Humanity homes in Minnesota remain a model for healthy, efficient, affordable housing.

Achievements and Partners in Building It Green

Minnesota affiliates have worked hard to stay on top of energy efficient, environmentally responsible, and affordably sustainable home construction. They have used new materials and techniques, and developed relationships with building science experts and funding partners to help implement energy efficiency measures.

For instance, in October of 2008, Minnesota Housing, the state housing finance agency, awarded Habitat for Humanity of Minnesota a \$250,000 CRV grant to assist affiliates in building homes that meet Minnesota’s Green Communities Criteria. Eight affiliates volunteered to participate, Winona, Steele-Waseca, Rice, Goodhue, Central, Lakes Area, Itasca, and North St. Louis County. Eighteen homes are now either completed or in

Table 1: Growth in Green, Greater Minnesota 2008-2009

Program	Builds 2008	Builds 2009
Homes built to Green Communities Criteria in partnership with Minnesota Housing	0	18
Homes certified as Energy Star	7	20
Homes built to Energy Star standards in partnership with Municipal Utility or local power supplier	4	6
Homes built to Energy Star standards in partnership with Electric Cooperatives (Minnesota Power or Great River Energy)	4	6

production according to this green building standard (including the 2009 Habitat 500 Bike Ride “bike.home.” in Rushford). In another case, Mille Lacs Energy (a Great River Energy Coop member) contributed funds and technical assistance for East Central affiliate homes that employed Energy Star standards in equipment and construction (including the 2008 Habitat 500 Bike Ride “bike.home.” in Onamia). Table 1 above details Greater Minnesota Habitat affiliates’ achievements and partnerships in green building over the last two years.

The Costs of Building It Green

Most of what has always been “green” about the Habitat homes in Minnesota involves careful construction techniques, simple and efficient layout, and minimal materials. As these things are a big part of most building standards programs (such as Green Communities or Energy Star), most affiliates don’t have far to go to meet them. Table 2 details the most common extra costs associated with meeting the Minnesota Green Communities Criteria and / or Energy Star. Note that if your affiliate is already doing these things, your cost to build to Energy Star or Green Communities is lower than the average total. Read on to see how these efforts pay off for Partner Families.

Table 2: Materials meeting the Minnesota Green Communities Criteria and / or Energy Star Standards.*

Material added or upgraded	Average addition/upgrade costs
Low-flow plumbing fixtures	\$150
Energy Star light fixtures	\$230
Energy Star bath fan	\$75
Exterior ducted kitchen range hood	\$350
Heat recovery ventilator (HRV) or energy recovery ventilator (ERV)	\$800
Furnace or boiler efficiency rating of 90% or better	\$800
Average Total	\$2,405

*Based on homes between 3 and 4 bedrooms; 1062 ft2 and 1120 ft2.

Table 3: Annual utility cost comparison

Utility	Habitat Home: high efficiency	Similar Home: standard	Minnesota average
Annual heat	\$700	\$853	\$1,200
Annual electric	\$692	\$910	\$972
Annual water	\$287	\$300	\$295
Annual totals	\$1,679	\$2,063	\$2,467
Annual Savings to Habitat Homeowner		\$384	\$788

Based on homes between 3 and 4 bedrooms; 1062 ft2 and 1120 ft2.; “Habitat home” data from Virginia Public Utilities for a sample of North St. Louis County affiliate homes; “Similar home” data modeled on households located in Virginia, MN and Tower, MN; Minnesota Average data from the Department of Energy’s Energy Information Administration.

The Benefits of Building It Green

Habitat builds affordable homes; these homes are affordable to maintain as well as construct. We are now collecting data from existing Habitat houses in order to chart the savings that our “green” efforts pass on to Habitat Partner Families.

Highly efficient Habitat homes consume 10% less energy annually than similar households/home sizes in Minnesota; and nearly 25% less energy than the state’s annual household average! As shown in Table 3, efficient Habitat homes can save around 15% in utility costs compared to similar homes, and up to 32% over the Minnesota average. That means families in highly efficient Habitat homes can see an annual savings of nearly \$800; a significant cost relief for families earning \$26,000 per year!

The homes used for this comparison were built in Virginia, Minnesota by the North St. Louis County affiliate and incorporate features such as Heat Recovery Ventilators, low-flow plumbing fixtures, high-efficiency heating equipment, double the minimum required slab insulation, and increased attic insulation.

Upcoming Resources for Building It Green

In pursuit of excellence, efficiency, and affordability, affiliates are always on the lookout for ways to improve their construction process. The results of a recent poll in which affiliate construction staffs were asked to rank potential construction training topics can be found in Table 4. The table details the first, second, and third most popular training topics, as well as which topics were most frequently requested. Also indicated in the survey results is that the preferred training format is a workshop, with 50% of the respondents in favor, followed by 40% for online training, and 30% for on-site group sessions. In addition, affiliate staff and volunteers are willing to travel an average of 105 miles to attend training. Habitat Minnesota will use these results, in part, to design session logistics and enlist technical expertise.

Table 4: Construction training topic survey results

Ranked #1	%	Ranked #2	%	Ranked #3	%	Top voted topics	%
air sealing	30%	moisture & water management	20%	air sealing	10%	air sealing	80%
insulation: products/ installation	10%	air sealing	10%	insulation: products/ installation	10%	insulation: products/ installation	60%
homeowner education: house orientation	20%	insulation: products/ installation	10%	advanced framing	10%	homeowner education: house orientation	60%

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