2007 – 04 HOME ENERGY CONSUMPTION EDUCATION

As more and more people become aware of global climate change, atmospheric pollution, the loss of forests and agricultural land, etc., they are exploring various ways of reducing home energy consumption and the use of more fossil fuels. Many "active" home energy-efficiency practices, such as better insulation in walls and windows, high-efficiency furnaces, solar heating of water, programmable thermostats, and others, are well known. However, there are also many"passive", design-based/planning practices that can maximize home heating and cooling efficiency, that are less well known... These practices supplement conventional and/or active systems but use few or no resources themselves once they are incorporated.

Many practices that are valuable to decreasing home energy consumption but are not as widely implement, include:

- If you have a choice of building alignment, placing windows on the south walls with overhangs outside, to let the sun in during the winter and keep it out during the summer.
- Installing a thick interior wall that can absorb sunlight/heat during winter days and help keep the house warm during winter evenings
- Planting deciduous trees on the south side of a building to block the sunlight in the summer but let it through in the winter. Evergreens can go on the north side to protect a house in the winter.
- Using geothermal heat pumps: These devices take advantage of the natural stable warmth stored in the earth. Normally the earth temperature is around 55 °F (13 °C) at depths of 10 ft. In climates warmer than 55 °F, this can be used to cool a building, and in colder climates (those under 55 °F) it can be used for warmth. A heat pump (exchanger) uses extracted water or transfer fluid (such as water mixed with antifreeze) as a heat source in winter and a heat sink in summer. Some heat pumps provide heating and cooling via forced air distribution, and others through the heating and/or chilling of water for radiant type systems. Some systems are also used to heat domestic hot water.
- Installing skylights for interior rooms can provide both light and heat. They even work for lower floors with proper passages. Covers, filters, vents, or reflectors can keep the heat out in the summer.

Education is important, as many people are unaware of many of these effective and simple things they can do to save energy and money in their homes. As the payback time for most of these actions is fairly short, using the building permit process may be an effective way to increase education of homebuilders/owners of these energy measures and increase the likelihood of them being implemented. For example, a building permit could require that the applicants check a box stating that they have consulted established Leadership in Energy and Environmental Design (LEED) criteria. LEED criteria are well-respected, national, green building and renovation standards, developed by the U.S. Green Buildings Council. By having homebuilders/owners review LEED at the time of

submitting a building permit application, it would at least make them aware of both active and passive design methods for reducing their energy consumption, and possibly move them forward toward acquiring LEED-type certification. .

Therefore, be it resolved the Minnesota Division Izaak Walton League of America in convention at Bloomington, Minnesota on April 29, 2007, supports the principles of the Leadership in Energy and Environmental Design (LEED) certification program of the U.S. Green Buildings Council and its potential to educate homebuilders/owners on active and passive energy practices. Thus, we ask that governmental bodies require that building permit applications include a statement that the applicant has consulted LEED or similar guidelines to reduce energy consumption in the construction or renovation of a home, even if they choose not to adopt enough measures to earn the certification.

Submitted by the Bush Lake Chapter