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Save money, conserve energy by landscaping with trees

Energy-efficient landscaping — the focus of the new Tree Power program sponsored by Columbia Water and Light — uses strategically placed trees and shrubs to reduce home cooling and heating costs. In fact, the Missouri Department of Natural Resources estimates energy efficient landscaping can reduce summer cooling costs up to 50 percent and cut winter heating bills up to 30 percent.

A house absorbs a lot of heat from the sun during a sunny summer day; roof temperatures can easily reach more than 150 F. By shading a portion of your house with trees and shrubs, you can decrease the temperature of your roof and walls and make the house easier to cool.

Deciduous trees — those that lose their leaves during the winter — are good choices for shade trees because they provide shelter for the sun in the summer, but let the sun's energy warm your home during the winter. Vines can also be effectively used to provide shade. Vines grow much faster than trees and can be easily trained to grow on a trellis alongside your house or porch.

Shading your air conditioner will make it work more efficiently and extend the life of its compressor. One easy way to shade an air conditioner is to construct a trellis around the unit for vines to grow on. However, it is best to use an evergreen vine, such as English Ivy, so that leaves don't fall into the unit during the autumn.

During the winter, evergreen trees and shrubs planted close to a house decrease heat loss through walls and windows by increasing the amount of "dead air." Evergreen trees planted further away provide an effective windbreak from the cold northwest winds.

To maximize shade during the summer and windbreak during the winter, plant a combination of evergreen and deciduous trees. Plant evergreens on the west and north to shade the house during the summer and provide a windbreak during the winter. Plant deciduous trees to the south and east to provide shade during the summer and allow sunlight to reach the house in the winter.

Columbia's Tree Power program provides free landscape energy audits to help residents decide which kinds of trees to plant and where to plant them. After completing a landscape audit, the city provides a coupon for one shade tree from the Superior Garden Center to get people started on their new energy efficient landscapes.

"A $20 tree can save hundreds of dollars throughout its life," said Jay Hasheider, an energy management specialist with Columbia Water and Light. Hasheider said that encouraging energy conservation is a lot cheaper for the city than investing in a new power plant or adding to the existing one. Energy conservation also reduces peak energy demands during the summer months when the city must purchase power from other sources at great expense.

An energy efficient landscape reduces fossil fuel consumption, air pollution and carbon dioxide emissions. Trees also provide privacy, reduce noise and improve property values. Considering that energy prices will only go up, designing an energy-efficient landscape is a long-term investment with a high rate of return.

For information on the Tree Power program, call the energy conservation department at 874-7325. For more information on energy-efficient landscaping, request the brochure "Growing Your Own Savings" from the Missouri Department of Natural Resources, PO Box 176, Jefferson City, Mo., 65102-0176.