

Trees Forever often hears from people who have lost shade trees and are shocked by their much higher utility bills. One person who lost a large shade tree in a storm told us his summer energy bill increased by \$50 a month!



Why the Focus on Trees?

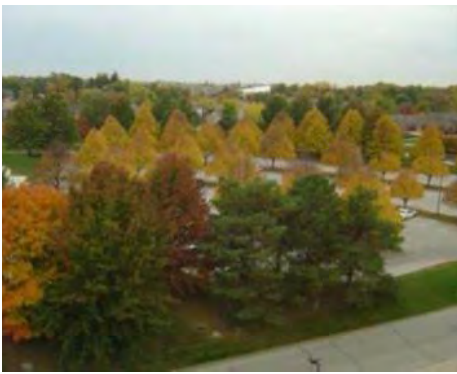
Trees are a practical, low-cost, common sense way to save energy for homes and other buildings. According to the US Department of Energy publication *Landscaping for Energy Efficiency*, proper placement of just three trees can save an average household \$100-\$250 in energy costs per year. In addition, trees and landscaping have a short return on investment. A well-designed landscape can provide enough energy savings to return the initial investment in less than 8 years.

The illustration above shows four ways homeowners can achieve cost-effective energy savings by strategically planting trees near their home.

- 1** Evergreen trees planted to the north and west of a home break up and redirect cold winter winds. Homeowners can save 10-15% on winter heating costs; windbreaks can reduce wind speed by up to 50%.
- 2** Trees planted on the west and east sides of homes directly shade the home from morning and afternoon sun, and reduce the heat absorbed through the roof, windows, and walls of a home.
- 3** Trees can be planted to shade sidewalks, streets, patios, and driveways to keep those surfaces cooler, and decrease the amount of heat they absorb and release back to the environment.
- 4** Trees planted to shade air conditioners can improve their efficiency by up to 10%. Homeowners can save 25-30% on summer cooling energy.



Trees Forever trained volunteers help care for young shade trees.



Tree canopy works to save on heating and cooling costs throughout a community.

Trees Collectively Help Reduce Energy Usage in a Community

While an individual homeowner can strategically plant trees on their lot to help with energy savings, community leaders and volunteers can plant trees throughout their communities which collectively help moderate the climate in summer and winter.

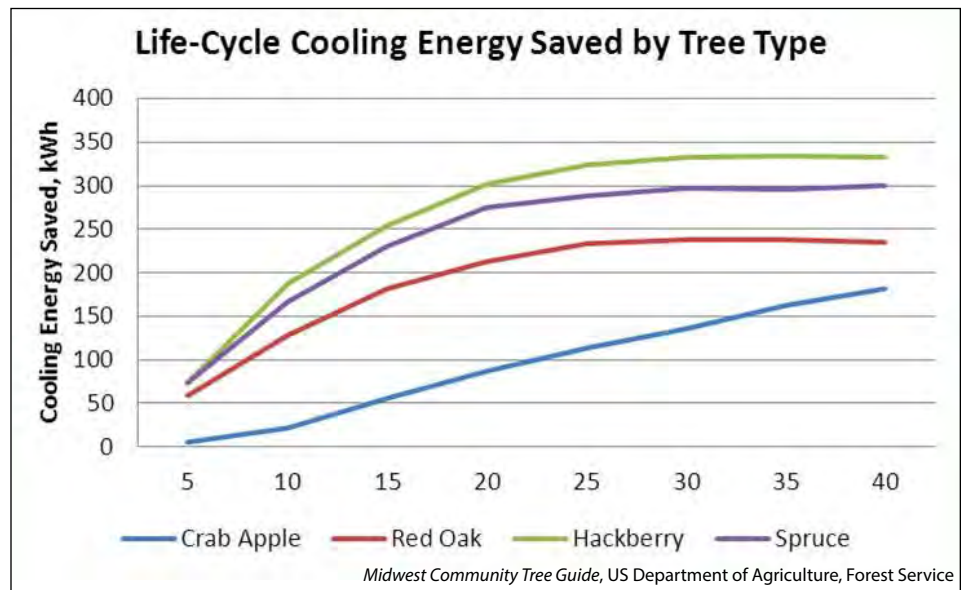
In hot summer months, trees act like mini-air conditioners to cool and freshen the surrounding air through evaporative cooling. Trees that provide shade on parking lots, trails, sidewalks, and streets keep these surfaces from absorbing heat then releasing it back into the environment. In this way trees combat the urban heat island effect. In the winter, trees planted throughout a community work en masse to help break up and redistribute winter winds and save heating energy on a larger scale.

Since 1989, Trees Forever has worked with community leaders and volunteers, in partnership with utilities, to plant and care for trees at parks, schools, residences, and along streets. Together we have:

- Completed 3,400 projects.
- Planted 1,240,888 trees.
- Achieved more than 15 million total kWh of energy savings.



When space allows, choose to plant large-sized shade trees (such as hackberry or bur oak) with broadly spreading canopies and dense shading. Large trees provide more energy and environmental benefits than small ornamental trees (such as crab apple) or those with narrow-shaped canopies.



Trees are unique as an energy efficiency measure because their benefits grow over time. As trees get established and grow in size, their energy savings benefits grow also. Proper care and maintenance of trees is critical to achieve these growing benefits.

Join Trees Forever on its mission to plant and care for trees and the environment by empowering people, building community and promoting stewardship.

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