Need help selecting a tree?

Consider the following shade providing species:

Species Common Name	Canopy Size		Species Common Name	Canopy Size
Ash, Green	Large		Hornbeam, European	Medium
Beech, American	Large		Katsura Tree	Medium
Maple, Sugar	Large		Maple, Red	Medium
Oak, Chestnut	Large		Maple, Southern Sugar	Medium
Oak, Laurel	Large		Pistache, Chinese	Medium
Oak, Nuttal	Large		Yellowwood, American	Medium
Oak, Overcup	Large		Chinquapin, Allegheny	Medium
Oak, Sawtooth	Large		Cherry, Yoshino	Small
Oak, Scarlet	Large		Cherry, Kwanzan	Small
Oak, Shumard	Large		Crabapple, Japanese	Small
Oak, White	Large		Dogwood, Flowering	Small
Oak, Willow	Large		Golden Rain Tree	Small
Pagodatree, Japanese	Large		Hawthorn, Washington	Small
Planetree, London	Large		Crape Myrtle	Small
Blackgum (Tupelo)	Medium		Maple, Trident	Small
Cherrylaurel, Carolina	Medium		Redbud, Eastern	Small
Elm, Chinese	Medium		Smoketree	Very Small
Hornbeam, American	Medium			

Making your home more energy efficient
– by planting trees.

GEORGIA FORESTRY COMMISSION

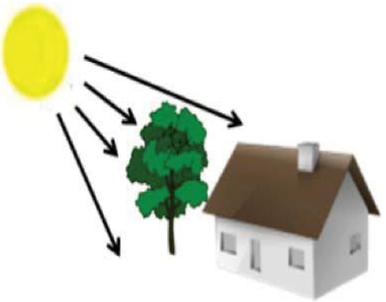
GEORGIA POWER
A SOUTHERN COMPANY

"Georgia ….we have a problem"

Georgians are blessed with many hours of summer sunshine and inexpensive energy resources. While it's a good bet the sunshine will always be there, low cost energy will continue to be a challenge. Our homes can become energy hogs, absorbing the sun's rays, converting them to heat, and radiating that heat back into our living spaces. Heat from roofs, walls, sidewalks, driveways, roads and parking lots raises the temperature of our homes and offices to uncomfortable levels. How many of us have windows that pass through so much of the sun's heat during the day that we must close the blinds and "crank up the a/c" to stay comfortable? Our homes and workplaces, while better insulated than in the past, require more and more energy, with more than 18 percent of summer energy use going to cool our homes.

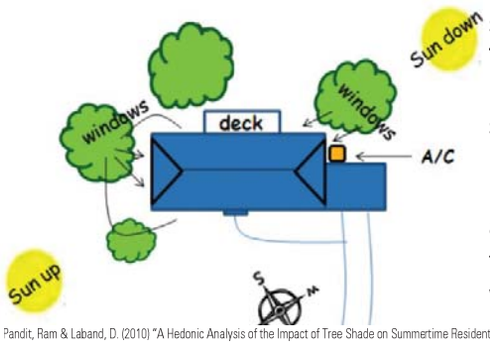
"The solution"

Homeowners and energy utilities are rediscovering tree planting as a time tested method for reducing energy use. Research has shown roofs, windows and air conditioners that are shaded by trees help reduce energy usage by up to 20 percent. Tree's leaves are valuable tools that shade the heat-absorbing surfaces of our homes. As the sun's rays strike the leaves, the rays are blocked and absorbed. This is particularly beneficial between the daylight hours of 11 a.m. and 6 p.m., when the sun's energy has the highest impact on our homes. Placing the proper tree species on the east, south and west sides of our homes can have a significant impact on our cooling bills and quickly pay back the cost of installation and maintenance. Shaded surfaces also need to be painted less frequently, thereby decreasing overall maintenance costs.



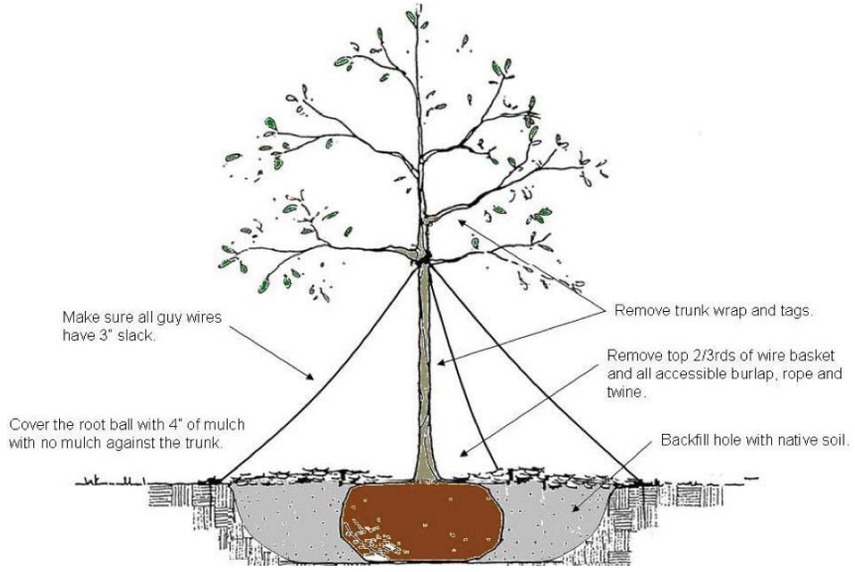
"How it's done"

First: Determine where the sun rises and sets with respect to your home's location. Second: Figure out which areas (windows, walls, doors, air conditioning units or decks) receive the most hours of direct sun and indirect sun (reflected sun). Third: Given the sun's angle at different parts of the day, determine where the shade needs to be to most effectively block the sun. Does the shade need to be 10 feet above the ground or 30 feet above the ground? Can one tree serve two purposes by shading two windows, walls or multiple heat absorbing surfaces? Fourth: Determine how much space is available for the tree's root system. A large tree requires at least 200 square feet of soil surface area and a small tree needs 100 square feet. Finally, be sure the larger trees aren't planted too close to the house – at least 15 to 20 feet away is needed to allow for future growth. Also, remember to not use evergreen trees on the south and west sides of the house. Planting deciduous trees in these locations allows the warming rays of the sun to reach the house through the trees' branches in winter. If you are unable to plant trees everywhere you need or want them, the following list can help you prioritize desired locations, based on their energy saving potential:



1. Air conditioning units on south or west side of the home
2. West and southwest facing windows and doorways
3. East and southeast facing windows
4. West and southwest facing wood sided walls
5. Any deck areas that reflect light to the interior of the home

Planting trees properly is critical to the long term success of your energy conservation project and can raise your property value by up to five percent. Start by selecting the location for your planting. Tree locations should avoid easements and right-of-ways and should not be placed directly under overhead utilities. The location will dictate the mature size of the tree and its needed planting space. Make sure you purchase a quality tree with a healthy root system (10 inches of container width per each inch of trunk diameter at six inches above the soil line). Prior to digging, make sure all utilities have been located. Dig the hole to the depth of the root ball, and no deeper. Use native soil to backfill and woodchips for mulch. Staking should not be needed unless the tree is over three inches in caliper. Tree planting is just one piece of the energy conservation puzzle. For other energy saving ideas, please contact your local energy utility.



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