



A Constellation Energy Company

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[www.bge.com](http://www.bge.com)

# TREE PLANTING GUIDE

*Planting Trees to Save Energy Naturally*



Printed on recycled paper.



## ANY QUESTIONS?

### MAINTENANCE PROGRAM



BGE oversees a tree-maintenance program by qualified tree trimmers licensed by the state to prevent power outages caused by toppled trees and fallen limbs. Although it is a necessary measure, trimming may permanently change the tree's shape. You can prevent problems by selecting appropriate trees or shrubs to plant near utility lines, meters and transformers.

If you have questions on planting the appropriate trees and shrubs on your property, contact BGE at 410-685-0123 or outside the metro area at 1-800-685-0123 and ask for the Forestry Management Unit or talk to your local nursery.

For more information about BGE's vegetation and right-of-way management program, go to [www.bge.com](http://www.bge.com).

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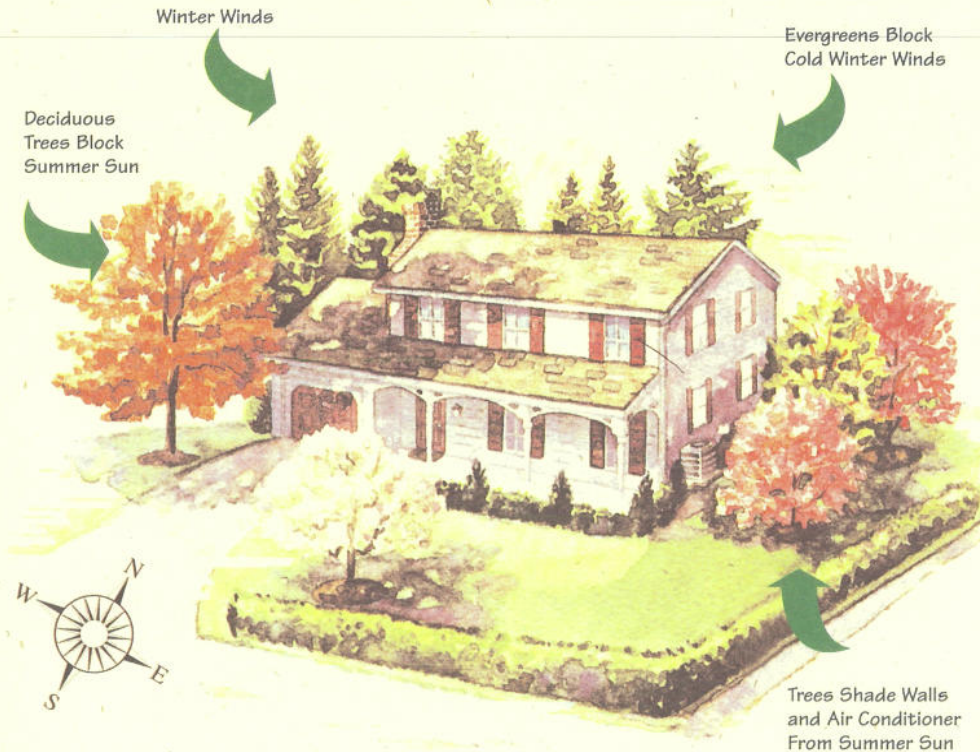
## CONSERVE ENERGY NATURALLY

One of your greatest opportunities to conserve energy is right outside your window.

By properly selecting and planting the right trees and shrubs around your home, you can stop chilling winds in winter, create cooling shade in summer and reduce your energy use year-round.

And there is another advantage. By planting the right tree in the right place, away from utility lines, transformers and meters, you can reduce the cost of trimming and removal required for safe maintenance of power lines, equipment and right-of-way.

This brochure shows you how to plant trees with energy efficiency and safety in mind. By following this guide, we can all enjoy healthy, attractive energy-saving trees that live in harmony with safe, reliable electric service. If you have questions about planting trees to save energy naturally, contact BGE at 410-685-0123 or 1-800-685-0123 outside the Baltimore metropolitan area or talk to your local nursery. For more information, visit [bge.com](http://bge.com).



## WHAT YOU CAN DO

### TREESCAPING

#### BE "TREE SMART" — THINK AHEAD BEFORE YOU PLANT

If landscaping is in your plans, carefully consider the type and location. Landscaping is a beautiful and natural way to help keep your home more comfortable and reduce your energy bills. A well-placed tree or shrub can shade your home, act as a windbreak and reduce overall energy bills. By planning ahead you can plant trees that will grow healthy and beautiful without interfering with utility equipment. And always remember — call MISS UTILITY before starting any landscaping project.

■ **Winter Windbreaks:** Four times as much energy is spent to heat homes than to cool them. The right combination of trees and shrubbery can provide a natural screening that protects your home from wind, noise and dust.

Where should you plant? For energy efficiency in the winter, plant rows of shrubs and evergreens on the north and west sides of your home. Pine, spruce and hemlock make good windbreak trees. Privet, yews and hollies make good screening and hedging shrubs.

■ **Year-Round Comfort:** Low trees and shrubs planted close to your home reduce wind currents and create "dead air" space that helps reduce heat loss in the winter and buffers your home from hot outside air in the summer.

■ **Summer Shade:** Proper shading can help you reduce your summer cooling costs. Well-selected, well-planted deciduous trees (those with seasonal leaves) can provide summer shade and allow incoming solar heat in the winter.

*Where should you plant?* To shade your house from the early-to-mid-morning summer sun, plant deciduous trees on the east and southeast sides of your home. If your house gets a lot of hot afternoon sunlight, plant shade trees on the southwest side. And don't forget to shade your air conditioner or heat pump.

### TREE TRIMMING

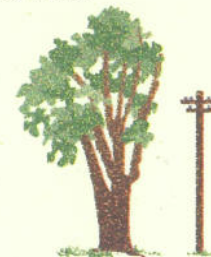
One small branch lying across electrical wires could be all it takes to cause a major power outage. That's why BGE prunes trees that have the potential to interfere with power lines or pose safety hazards.

With over 10,000 miles of overhead lines and about 2 million trees surrounding those lines, BGE's pruning activities are done throughout the year and throughout our entire service territory. All pruning is done by licensed tree trimmers. During planned maintenance trimming, all brush is removed with the exception of wood 8 inches and larger in diameter that is cut into fireplace lengths and left for the property owner. During unplanned maintenance such as storm situations, the tree or tree parts that cause the emergency are left on-site.

The way we prune trees may change their shape. But the pruning methods we use adhere to industry-accepted standards for tree maintenance. These methods help not only to improve electric service, but also to maintain the health of the tree.

#### OVERHANG REMOVAL

For large trees with branches hanging over power lines, we require at least 15 feet of clearance above lines that are part of our 13,000-volt system. Higher voltage lines require even greater clearance. These branches are typically pruned back to the tree trunk.



#### "V" PRUNING:

When utility wires run through a tree, we make a wide v-cut around the wire, leaving branches or stems on either side to grow naturally.



#### SIDE PRUNING:

For trees that grow under and adjacent to power lines, we remove overhanging and interfering side branches to gain necessary clearance.



#### CROWN REDUCTION

For trees growing directly underneath wires, we remove any branches that may interfere with our wires from below.



Landscape management enhances the safety and reliability of BGE's overhead systems, lessening the potential for service interruptions and public safety hazards. We oversee more than 10,000 miles of overhead distribution lines and 540 miles (10,700 acres) of transmission rights-of-way.

Approximately two million trees are maintained on a 3- to 5-year trimming cycle. We also maintain access to and along the rights-of-way, addressing trespassing, illegal dumping, and sediment/erosion issues.

Our regular inspection of overhead power lines, combined with reliability performance data, helps us plan our yearly tree work. This improvement process will enhance and preserve our system's reliability performance. To maintain this critical schedule, we do not provide off-cycle trimming or inspection unless

- A homeowner or contractor requires BGE assistance when removing or trimming trees that are near our power lines. *(If you need to secure a tree contractor, please check the Maryland Department of Natural Resources or the Yellow Pages under the category "Tree Service.")*
- A hazardous condition exists: broken or uprooted tree; cracked and broken branches hanging over BGE overhead equipment; situations where children or other individuals may come into direct or indirect contact with BGE energized conductors while climbing trees.

If any of the above conditions exists, please call us 24 hours a day at 410-685-0123 or 1-800-685-0123 from outside the Baltimore metropolitan area. We will have a representative contact you.

All other tree trimming and removals will be handled during our regular maintenance program.

### PARTNERSHIPS AND ADDITIONAL INFORMATION

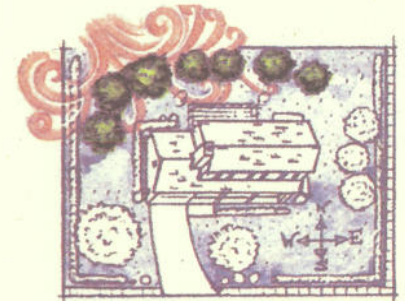
To help us accomplish our goal as a recognized leader in the utility industry, we have established partnerships for various portions of our rights-of-way with U.S. Fish & Wildlife Service, the Maryland Department of Natural Resources, National Park Service and many others.

### TIPS FOR TOWNHOUSE COMMUNITIES

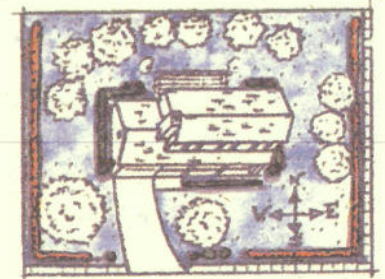
Although this booklet is designed primarily for people living in detached, single-family homes, much of this information also is relevant for townhouse communities. If you live in such a community, consider these tips when planting:

- Shade your heat pump by planting deciduous trees to reduce your summer cooling costs.
- Select tree varieties that have narrow, upright crowns when planting trees where space is limited.
- Work with your neighbors and community association to develop an overall planting plan to realize other long-term savings.

For further information, talk to your local nursery or call BGE at 410-685-0123 or 1-800-685-0123 and ask for the Forestry Management Unit, or go to [www.bge.com](http://www.bge.com).



Block Winter Winds



Sustain Year-Round Comfort with Low Shrubs/Foundation Planting



Enhance Summer Shade

## WHERE TO PLANT

### THINK AHEAD BEFORE YOU PLANT

The wrong tree planted in the wrong place could cause multiple problems in the years to come, including damaging property and endangering lives. That's why it's important to plan ahead when planting.

The key to growing a safe, healthy, long-lived tree is to fit it to the site, give its roots and crown plenty of room to grow, and take care of it as it matures.

So before you plant, ask yourself: What and where are the closest obstacles to growth above and below ground? The answer should limit the size of the tree you select.

Remember, when you choose a tree or shrub, find out how tall and wide it will grow before you plant it. Then choose a place that offers enough space for it to reach its mature height and width.

### PLANT AWAY FROM POWER LINES

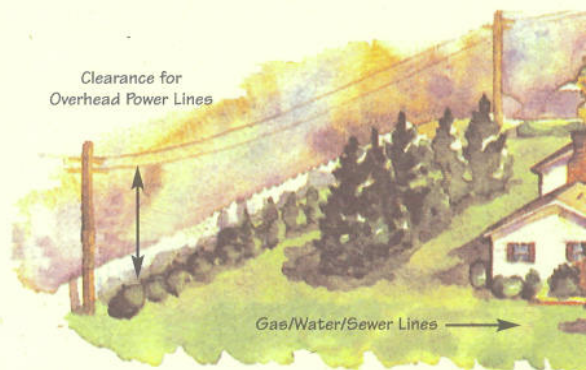
Large trees growing under power lines are a safety hazard, cause power outages and cost a lot to maintain. If you plan to landscape near overhead electric lines or ground-level transformers, follow these tips:

### THINK BEFORE YOU PLANT

#### Look Up: Are power lines overhead?

- If planting trees under or close to power lines, make sure they will not grow taller than 25 feet.
- If planting a tree that grows any taller than 25 feet, make sure it is at least 20 feet away from the pole. See diagram below.
- If the overhead lines are high-voltage (usually on steel structures or double wood poles), contact BGE at 410-685-0123 or 1-800-685-0123 and ask for the Forestry Management Unit before attempting to plant on these high-voltage right-of-ways.

*The placement of utility lines and equipment varies in each neighborhood.*



## PRUNING

### GUIDE TO SUCCESSFUL PRUNING: TO KEEP IT HEALTHY, KEEP IT PRUNED!

Pruning should be a regular part of plant maintenance. You may think of pruning only when a shrub or tree has grown too big for the spot where it's planted. But proper pruning can not only enhance the beauty of almost any tree or shrub, it can also ensure a safer environment and easier access to utility equipment.

You can reduce the need for pruning by following two simple steps. First, select the proper plant for the location — consider planting 'utility friendly' plants near power lines. And second, give roots and crown plenty of room to grow — consider their proximity to sidewalks, driveways, exterior structures, and underground utilities like gas or water pipes and electrical cables. Be sure to call MISS UTILITY before you dig.

### PRINCIPLES OF PRUNING:

#### When to prune

Pruning can be done at any time of the year; however, recommended times vary with different plants. You should visit your local nursery for species-specific pruning information.

#### How much to prune

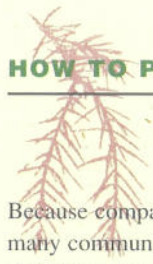
Pruning a tree as little as possible is often the best for its overall health and longevity. How much to prune depends largely on the purpose of the pruning. Check with your local nursery for species-specific information.

### THE 1, 2, 3 OF PROPER PRUNING CUTS

Proper pruning is essential to the growth and development of plants. Cutting too flush or too far to the trunk invites disease. To encourage rapid healing of wounds, make all cuts clean and smooth, using good, sharp pruning equipment. Do not leave stubs since they are usually where dieback occurs. To avoid tearing the bark when removing large branches, use the "three-cut" method:

1. The first cut keeps the bark from tearing when the branch comes off.
2. The second cut removes the bulk of the branch.
3. The last cut removes the stub of the branch back to the collar.

## HOW TO PLANT A TREE?



**The best time to plant a tree was 20 years ago.  
The second best time is now. -Anonymous**

Because compacted soil is common in many communities today, it might be easier for you to find the right site than the right soil for planting a tree. If your soil is hard to dig in, it is compacted. The best way to improve this soil is to increase the width of the hole you dig to three times the width of the rootball of the tree you are planting.

Here are some more tips to follow to ensure the tree you plant remains healthy throughout its life.

### TREE-PLANTING STEPS

- Keep your tree watered, protecting it from the sun until you're ready to plant.
- Dig a hole three times the rootball's diameter but not as deep.
- If your tree is in a container, remove it, then gently separate and straighten circling roots and cut any that are tangled.
- If your tree is in a wire basket or tied with burlap, go on to the next step. Do not remove the wire basket or burlap.
- "Plant Proud:" set tree on solid ground — not on loose soil — in center of the hole, so that the rootball's top sits 2 inches above the ground level.
- Make sure tree is straight and fill hole halfway with soil.



- At this point, if your tree is in a wire basket or tied with burlap, fold it back or remove it from the top of the rootball.
- Check tree, making sure it's straight, and use your hands to firm up the soil. **Do not** stomp with your feet as you finish filling hole to the level of the ground.
- Form a shallow basin around the tree and fill it at least three times with water.
- Mulch the area with 3 inches of shredded bark or wood chips, keeping mulch away from the trunk.
- Take care of your tree. Water it weekly. Don't hit it with the lawn mower or weed eater. Ask a professional nursery for further care instructions of your tree.



### Look Down: Are power lines underground?

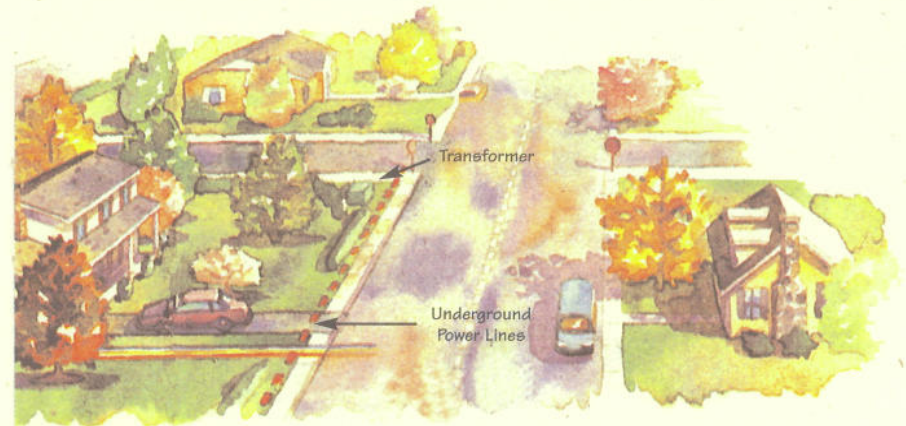
- Call MISS UTILITY, 1-800-257-7777, at least two days before you plan to dig.
- Keep trees and shrubs at least 3 feet away from underground lines.

### Look Around: Do you have a big green metal box in your yard?

If so, it could be a BGE transformer.

- Never plant in front of the transformer doors, but if you want to plant around it, consider mature plant size to always maintain a 2-foot clearance from its sides.
- Never use probes to water or fertilize shrubs around transformers.

**Remember:** For your safety, call MISS UTILITY 1-800-257-7777 before you dig. For more information about which trees to plant and where, see pages 6 and 7 of this brochure.

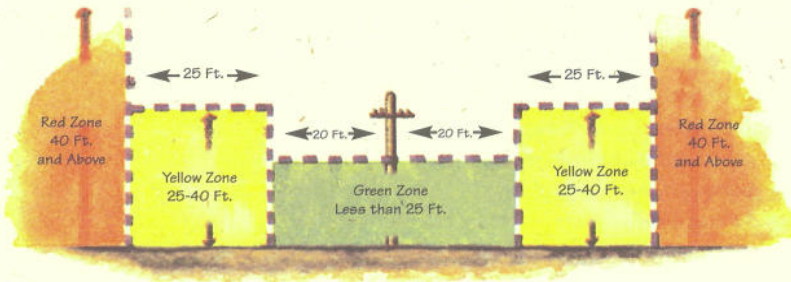


## PLANTING-ZONE CONCEPT

### RIGHT PLANT + PLACE = SUCCESS & SAVINGS

It's important to make sure your tree fits its site and won't interfere with power lines. For safety and service reliability, BGE must keep clear the "wire zone" located at the top of each pole. Any tree that grows higher than 25 feet is not suitable for areas near power lines.

Use this planting-zone guide and talk to your local nursery to select the right trees for your yard.



**Red Zone:** For trees that grow more than 40 feet tall. DO NOT PLANT NEAR POWER LINES. These trees are recommended for large open areas without overhead or underground restrictions to allow for their height, width, and large root systems.

#### Ornamental

American Linden -  
Redmond or Legend  
Common Horse Chestnut  
Little Leaf Linden -  
Greenspire or  
Glenleven  
Scholartree - Regent or  
Japanese

#### Shade

Ash - White or Green  
Blackgum  
Birch - River  
Dawn Redwood  
Ginko ( male only)  
Honeylocust - Skyline,  
Halka, or Shademaster  
Maple - Red or Sugar  
Oaks - White, Red,  
Willow or Pin  
Sweetgum  
Zelkova

#### Evergreen

Blue Atlas Cedar  
Cryptomeria  
False Cypress - Hinoki  
Leyland Cypress  
Spruce - Norway, Serbian,  
Colorado Blue or  
White  
White Pine



**Yellow Zone:** For trees that grow 25 to 40 feet tall. DO NOT PLANT THESE TREES UNDER POWER LINES. Instead, plant them in intermediate areas near homes where above-and-below-ground growing space will allow for their mature height, width and root system.

#### Ornamental

Flowering Cherry -  
Kwanzan, Sargent, Higan  
Golden Rain Tree  
Callery Pear - Redspire,  
Aristocrat, Trinity  
Red Horsechestnut - Brioti  
Yellowwood

#### Shade

Hedge Maple  
Honeylocust - Imperial  
European Hornbeam  
American Hornbeam  
Sawtooth Oak



#### Evergreen

Eastern Red Cedar  
False Cypress - Golden  
Eastern Hemlock  
American Holly  
Japanese Black Pine  
Lumber Pine

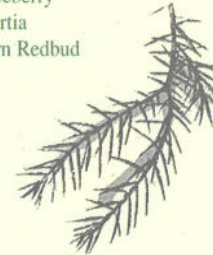
**Green Zone:** For trees that grow less than 25 feet tall. THESE TREES ARE APPROPRIATE FOR PLANTING UNDER OR NEAR POWER LINES.

#### Ornamental

Crabapple\*  
Crape Myrtle  
Dogwood - Kousa, Gray  
Franklinia  
Goldenchain - Vossii  
Hawthorne  
Japanese Tree Lilac -  
Summer Snow, Ivory Silk  
Japanese Snowbell  
Serviceberry  
Stewartia  
Eastern Redbud

#### Shade

Amur Maple  
Paperback Maple  
Trident Maple  
Truncatum Maple -  
Norwegian Sunset,  
Pacific Sunset  
Japanese Red Maple -  
Bloodgood, Burgundy  
Lace



#### Evergreen

Arborvitae - Nigra, Techny,  
Emerald  
Holly - Nellie R. Stevens,  
Foster  
Chinese Juniper - Robusta  
Green, Spartan, Spearmint

#### Hedges & Screens

(6-15 feet tall)  
Viburnum - Leatherleaf, Doublefile  
Hollies - Japanese, Chinese, Blue  
Yews - Hicksii, Hatfield  
Juniper - Pfizter, Old Gold, Hezti

\* Choose only crabapple varieties with good to excellent resistance to scab and blight disease. Ask your local nursery for details. For a detailed list of compatible species, check [www.bge.com](http://www.bge.com).