



Guide to Planting Safely

Choosing the Right Tree for the Right Place





Planting with safety in mind

At Pacific Gas and Electric Company (PG&E), our most important responsibility is the safety of our customers and the communities we serve.

As part of that responsibility, we created this guide to help you plant the right tree in the right place. Planting safely near overhead electric powerlines can help reduce power outages and prevent wildfires.

Thank you for doing your part to keep your community safe.

Table of contents

<u>Planting with safety in mind</u>	<u>1</u>
<u>Plan before you plant</u>	<u>3</u>
<u>How to plant and care for your tree</u>	<u>5</u>
<u>Recommended small trees</u>	<u>7</u>
<u>Additional resources</u>	<u>14</u>



This guide includes recommended trees for your region. For suggestions in other regions, visit [pge.com/righttreerightplace](https://www.pge.com/righttreerightplace).



Planting with safety in mind

When planting, use this checklist to stay safe:

- ✓ **Confirm what equipment is nearby** where you want to plant. What can be planted near a distribution powerline may not be safe near a transmission line or above a gas pipeline.
- ✓ **Always call 811** at least two working days before digging or planting. A crew will mark underground utilities for free.
- ✓ **Check if you live in a High Fire-Threat District (HFTD).** Areas with increased wildfire risk may have different safe planting requirements.

- To see if you live in an HFTD, visit ia.cpuc.ca.gov/firemap.

- ✓ **Choose the right plant.** Picking vegetation tailored to the climate in your area can help your garden thrive.
- ✓ **Verify your climate zone.** Your climate zone can help you discover plants that will grow best in your region.

- To find your Sunset Climate Zone, visit sunsetplantcollection.com/climate-zones.



Plan before you plant



Understand what type of equipment is on your property

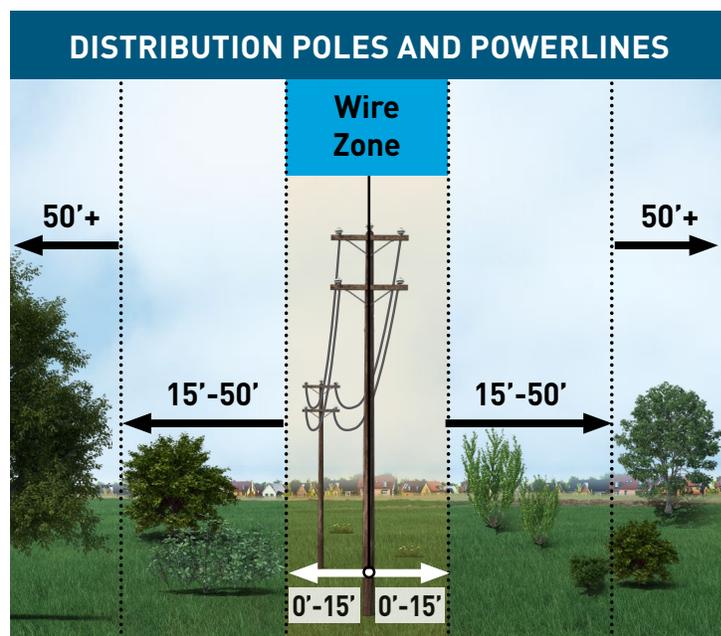
The guidelines for planting near overhead powerlines depend on the type of equipment.

All powerlines have a wire zone, which is the area right around poles and wires. For safety, do not plant any trees in the Distribution Wire Zone or Transmission Wire Zone.

Distribution equipment

Distribution powerlines are typically at the top of wooden poles. These are like city streets that bring electricity to your neighborhood and home.

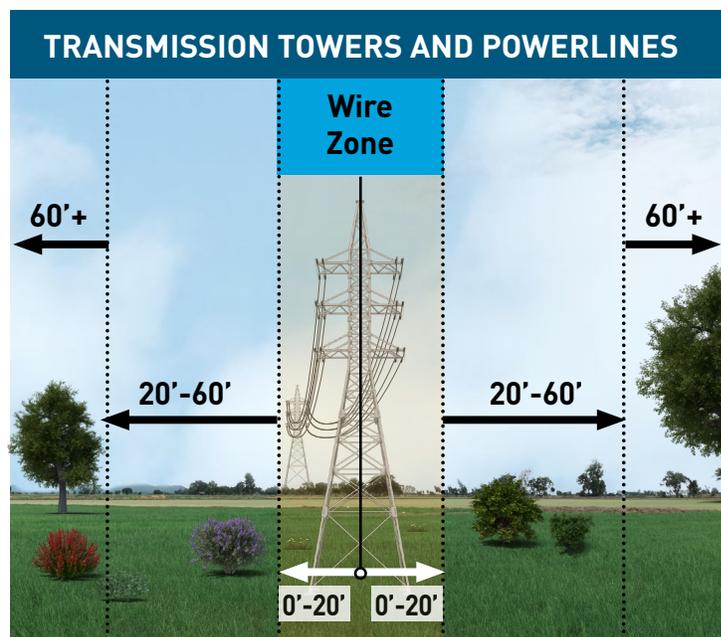
- In the Distribution Wire Zone, plants shorter than 1 foot when mature are allowed within HFTDs. Outside of HFTDs, plants and non-tree shrubs can grow up to 10 feet when mature.
- Between 15-50 feet out from the wires, trees up to 15 feet tall are safe.
- Beyond 50 feet out from the wires, trees taller than 15 feet tall may be planted.



Transmission equipment

Transmission powerlines can be found at the top of large metal towers or poles. These act as a highway carrying high voltage electricity across long distances.

- In the Transmission Wire Zone, low-growing grass shorter than 2 feet tall is allowed.
- Between 20-60 feet out from the wires, shrubs up to 10 feet tall are safe.
- Beyond 60 feet out from the wires, trees taller than 10 feet tall may be planted.



To stay safe, always call 811 at least two working days before digging or planting. A crew will mark underground utilities for free.

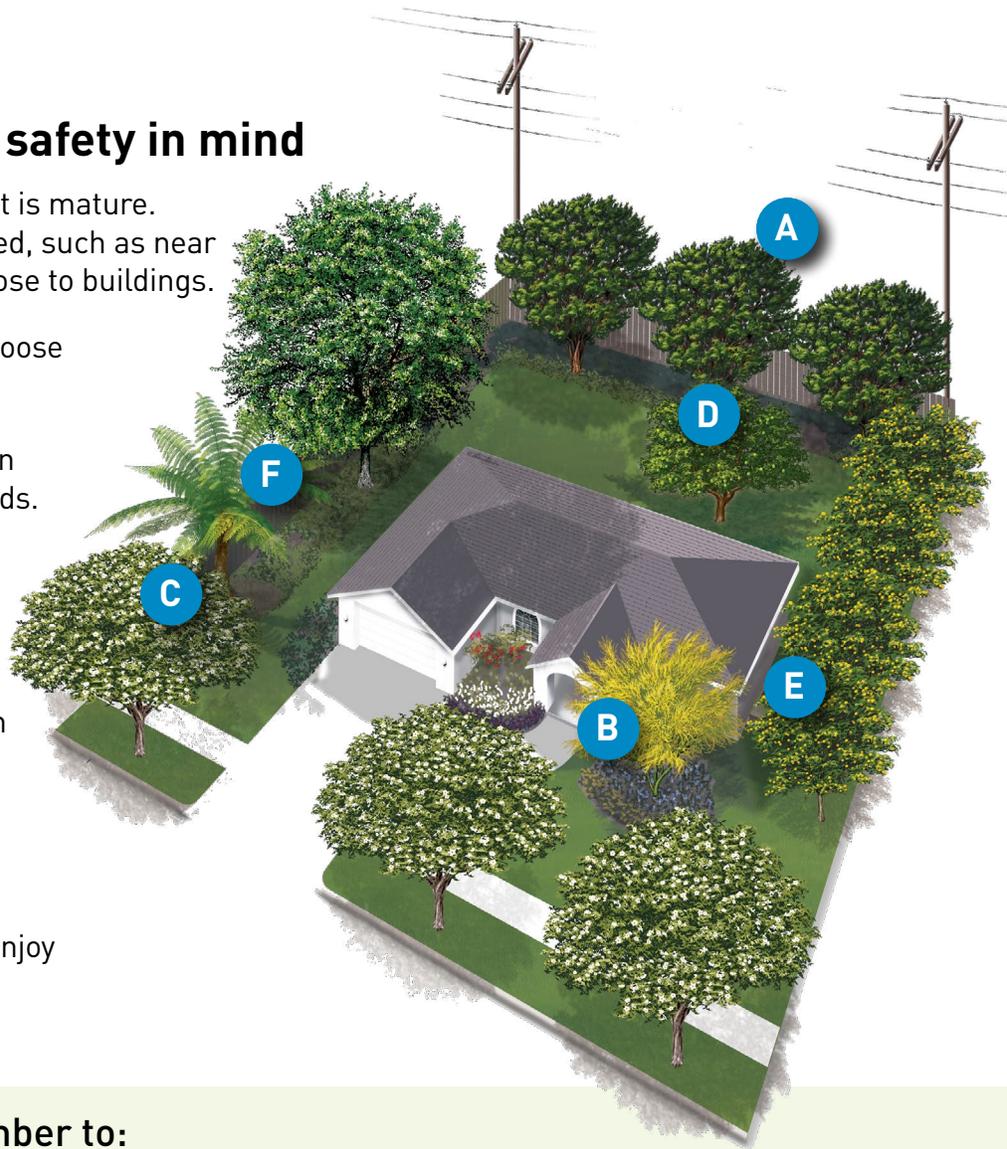


Plan before you plant

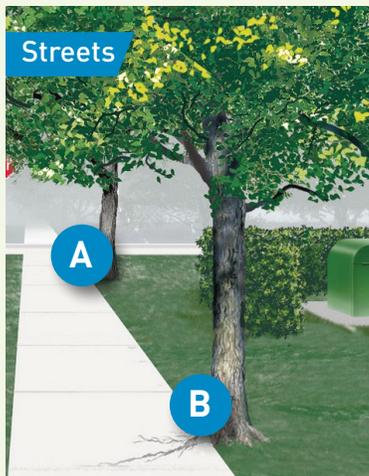
Create a landscape with safety in mind

Consider how tall a tree will be when it is mature. This is important where space is limited, such as near powerlines, in narrow side yards or close to buildings.

- A.** When planting near powerlines, choose low-growing, fire-resistant shrubs.
- B.** Small flowering trees or shrubs can attract butterflies and hummingbirds.
- C.** Many tree species add curb appeal and help beautify your neighborhood.
- D.** Trees that produce fruit or nuts can attract birds and other wildlife.
- E.** Small trees create hedges or privacy screens.
- F.** Add interest with small trees and enjoy extra benefits from large trees.



When planting, please remember to:



Streets

- A.** Plant at least 10 feet from the curb at street corners to maintain visibility.
- B.** Avoid planting too close to sidewalks, streets or driveways.



Transformers

Plant at least 8 feet from the front and 2 feet from the back and sides of pad-mounted transformers.

! We may need to remove any hazardous trees to keep you safe.



How to plant and care for your tree

Follow this step-by-step guide when you are ready to plant:

- 1. Call 811 at least two working days before digging.** A crew will mark any underground utilities for free.
- 2. Prepare the planting area.** Mark an area several times wider than the root ball diameter. Loosen this area to about the depth of the root ball.
- 3. Dig a shallow hole.** Ensure the sides of the hole are rough and uneven. In hard soils, a rough edge helps new roots grow out into the surrounding soil.
 - For containerized trees, gently remove the container from the root ball. Loosen the roots with your fingertips and prune away damaged or circling roots.
- 4. Place the tree in the hole.** The trunk flare, the area just above the root ball where the trunk widens, should be at or just above the soil surface.
 - For balled and burlapped trees, rest the root ball in the center of the hole. Carefully, remove the burlap and any other material away from the sides and top of the root ball.
- 5. Loosen the soil near the trunk.** Remove any soil so that the trunk flare is visible at the top of the root ball. Stand back to look at the tree and make any adjustments as needed.
 - Do not add any fertilizer at time of planting. If the tree is not growing correctly after the first year, then add fertilizer at the drip line. Always follow the fertilizer manufacturer's instructions.
- 6. Fill the hole with original soil around the tree.** Gently backfill the hole using one-third of the soil at a time. Break up dirt clods and remove any grass, weeds or rocks. Lightly pack the soil with a shovel to remove any air pockets and avoid stamping on the soil. Refill and pack again until the soil is even with the top of the root ball and the trunk flare is slightly above the soil. Then, water thoroughly.
 - After packing the soil, construct a small earthen dam or berm to hold water until it soaks into the soil. This can be removed two years after planting.
- 7. Cover the entire loosened area of soil.** Layer up to 3-4 inches of mulch on top of the soil. Keeping mulch away from the trunk of the tree can help prevent disease.
- 8. Stake only if tree stability is a problem.** Staking is a temporary measure to allow the trunk to develop strength. The sooner the stakes and ties are removed, the stronger your tree will be. A tree should only be staked for one to two years.
- 9. Water based on your tree's needs.** Soak trees at planting and follow up with weekly watering for two years. Be sure to water slowly and not drown the roots, as they need air to grow as well.

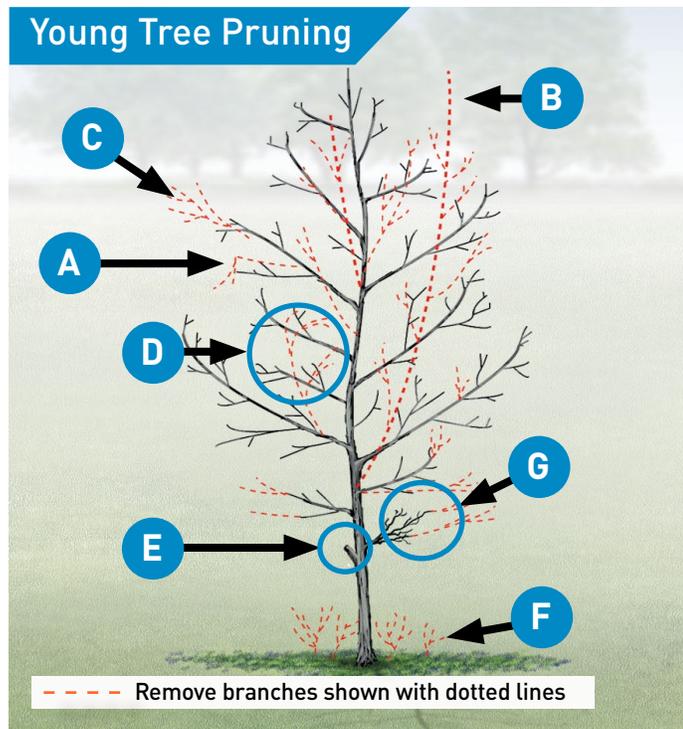
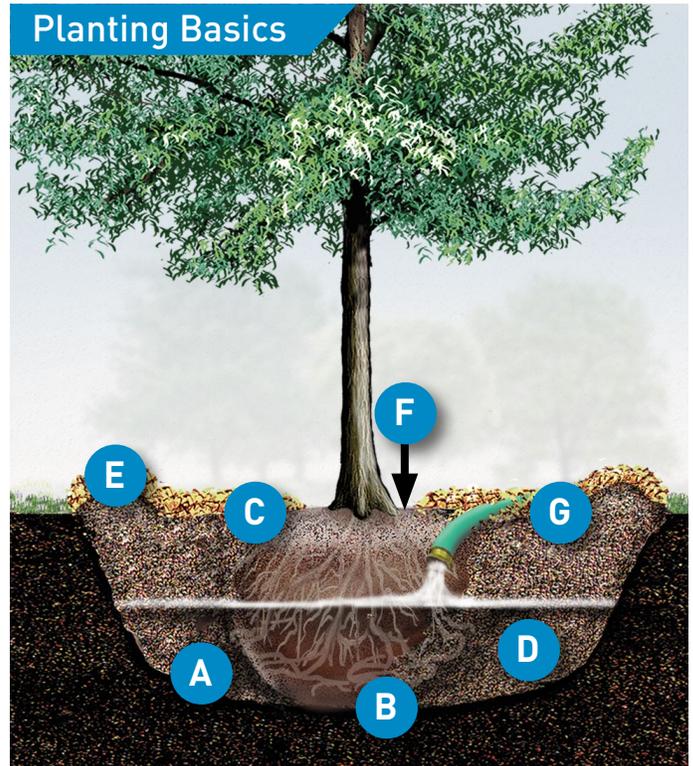


How to plant and care for your tree

Tree planting and care overview

How to plant your tree:

- A.** Dig a hole no deeper than the root ball.
- B.** Place the bottom of the root ball on firm soil.
- C.** The top of the trunk flare should be slightly above ground level.
- D.** Backfill with original soil, tamping gently and watering briefly when filling the hole.
- E.** Add mulch 3-4 inches deep in a circle around the tree.
- F.** Keep mulch away from the trunk.
- G.** Build a soil dam just outside the root ball and widen out to 3-4 feet after a few weeks.



How to prune a young tree:

- A.** Remove dead, broken or crossing limbs.
- B.** Remove competing stems to develop a single trunk.
- C.** Remove limbs that extend beyond the natural crown of the tree.
- D.** Remove limbs that turn inward towards the trunk.
- E.** Do not leave branch stubs.
- F.** Remove root suckers and sprouts.
- G.** Shorten, but don't remove, low branches to develop trunk thickness and support root growth.

Recommended small trees

★ = California native



Japanese Maple | *Acer palmatum*

Famous for its striking display of fall color when leaves turn brilliant shades of scarlet, yellow or orange, it is one of the most beautiful small trees for the landscape. Well suited as an accent tree.

Mature Height: 25 feet | **Zones:** 1-3, 7-9, 14-24 | Deciduous

☀️🌑 Full Sun - Partial Shade 💧 Moist - Well-Drained Soil



Red Buckeye | *Aesculus pavia*

This tree flowers at three years old with red flowers in spring. The coarse, open structure and light brown, flaky bark offer great winter landscape interest.

Mature Height: 25 feet | **Zones:** 4, 7-9, 14-15, 17 | Deciduous

☀️ Full Sun 💧 Moist Soil



★ Mountain Alder | *Alnus tenuifolia*

This tree is extremely hardy in cold and prefers abundant water and cool sites along streams. It often grows in thickets and blooms with beautiful purple flowers in early spring.

Mature Height: 25 feet | **Zones:** 1-3 | Deciduous

☀️🌑 Full Sun - Partial Shade 💧💧 Wet - Moist Soil

Common Camellia | *Camellia japonica* 'Variety'

This large shrub can grow into a small tree and blooms with showy, fragrant flowers that range in shape and color. When mature, it can handle little water and afternoon sun.

Mature Height: 20 feet | **Zones:** 4-9, 12, 14-24
Evergreen

☀️🌑 Full Sun - Partial Shade 💧 Moist Soil

★ Ray Hartman Ceanothus | *Ceanothus* 'Ray Hartman'

This small tree bursts with clusters of medium blue flowers that attract bees, butterflies and birds. Its fragrant blooms and potential for a multi-trunk form add character to any space.

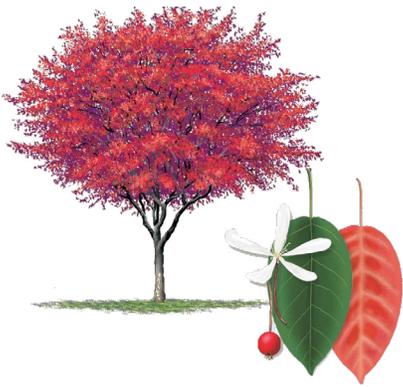
Mature Height: 20 feet | **Zones:** 5-9, 14-24
Evergreen

☀️ Full Sun 💧 Dry Soil



Recommended small trees

★ = California native



Eastern Serviceberry | *Amelanchier canadensis*

This is one of the earliest trees to blossom in spring. It produces white flowers that become blueberry-like edible fruit, attracting birds and wildlife. Its fall colors are orange, red and yellow.

Mature Height: 25 feet | **Zones:** 1-3 | Deciduous

☀️ 🌿 Full Sun - Partial Shade 💧 Moist Soil



Flowering Crabapple | *Malus 'Hopa'*

Grown for its adaptability, fragrant flowers and attractive, brightly colored fruit, this tree creates a warm glow of color each spring. It bears edible fruit and attracts wildlife. Good for sidewalk cutouts and as a street tree.

Mature Height: 20 feet | **Zones:** 7-9, 14 | Deciduous

☀️ 🌿 Full Sun - Partial Shade 💧 Moist Soil



Oklahoma Redbud | *Cercis canadensis var. texensis 'Oklahoma'*

This versatile tree has a rounded form and dark green, heart-shaped leaves. It blooms with royal purple, pea-like flowers in early spring.

Mature Height: 15 feet | **Zones:** 1-24 | Deciduous

☀️ 💧 Full Sun 💧 Moist - Dry Soil

Improved Semi-Dwarf Meyer Lemon | *Citrus limon 'Meyer Improved'*

This compact tree produces sweet, flavorful lemons nearly year-round, as well as fragrant leaves and white blossoms. A perfect addition for attracting bees to your garden.

Mature Height: 15 feet | **Zones:** 8, 9, 12-24
Evergreen

☀️ 💧 Well-Drained Soil

Weeping Flowering Dogwood | *Cornus florida 'Pendula'*

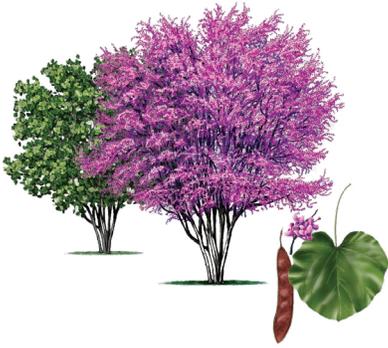
With drooping branches and white, fragrant flowers, this tree has a weeping look and blooms in early spring. It also attracts butterflies and wildlife.

Mature Height: 20 feet | **Zones:** 2b-9, 14-16
Deciduous

☀️ 💧 Well-Drained Soil

Recommended small trees

★ = California native



★ Western Redbud | *Cercis occidentalis*

Striking blossoms appear all over the tree in spring, then it produces beans that provide food for wildlife. Not suitable as a street tree but well suited as an accent tree.

Mature Height: 25 feet | **Zones:** 2-24 | Deciduous

☀ Full Sun 💧 Moist - Dry Soil



Bearss Lime | *Citrus aurantifolia*

This lime is the variety most commonly found in grocery stores. It's usually seedless and has light green-to-yellow pulp that is tender and acidic. It can be used for the same purposes as key limes and lemons.

Mature Height: 20 feet | **Zones:** 8-9, 14-24 | Evergreen

☀ Full Sun 💧 Well-Drained Soil



American Smoke Tree | *Cotinus obovatus*

Long flower stalks have a fluffy, grayish appearance resembling a cloud. One of the best plants for fall color with orange, purple and red leaves. Best used in a shrub border or as a patio or accent tree.

Mature Height: 25 feet | **Zones:** 1-3, 7-9, 14-24 | Deciduous

☀ Partial Shade 💧 Well-Drained Soil

Purple-leaved Filbert | *Corylus maxima 'Purpurea'*

This tree features rich chocolaty-purple leaves in spring and summer, which fade to dark green or purple by late summer. It produces edible fruits that are often left for wildlife.

Mature Height: 20 feet | **Zones:** 2-9, 14-20
Deciduous

☀ Full Sun 💧 Moist - Well-Drained Soil

Purple Smoke Tree | *Cotinus c. 'Purpureus'*

Enjoy year-round color with purple leaves that shift to green, complemented by wispy, smoke-like flower puffs in lavender or purple. Vibrant fall hues add seasonal interest to your garden.

Mature Height: 15 feet | **Zones:** 2-24
Deciduous

☀ Full Sun 💧 Dry Soil

Recommended small trees

★ = California native



Pineapple Guava | *Feijoa sellowiana*

A hardy tree, it blossoms in spring and produces fruit in late summer and early fall. Both flowers and fruit are edible, attracting birds and bees. The plants can be pruned into a small tree or a hedge.

Mature Height: 20 feet | **Zones:** 7-9, 14-24 | Evergreen

☀️ 🌿 Full Sun - Partial Shade 💧 Moist - Dry Soil



Common Witch Hazel | *Hamamelis virginiana*

The bark of this slow-growing, drought tolerant plant is the source of the liniment witch hazel. It has bright foliage and yellow and red bloom clusters in the fall. Well suited for borders and shady areas.

Mature Height: 25 feet | **Zones:** 1-3, 7-9, 14-16, 18-21

Deciduous

☀️ 🌿 Full Sun - Partial Shade 💧 Moist Soil



★ Toyon | *Heteromeles arbutifolia*

Drought resistant and low maintenance, this California native blooms in summer and bears beautiful red berries in winter. It is well suited for hedges for privacy or as an accent tree.

Mature Height: 25 feet | **Zones:** 7-9, 14-24 | Evergreen

☀️ 🌿 Full Sun - Partial Shade 💧 Moist - Dry Soil

Paul's Scarlet English Hawthorn | *Crataegus 'Paul's Scarlet'*

Enjoy a vibrant show of double scarlet blooms each spring on this dense, rounded tree. Its flowers attract bees, butterflies and birds, making it a lively addition to any garden.

Mature Height: 25 feet | **Zones:** 2-12, 14-17

Deciduous

☀️ 💧 Full Sun Well-Drained Soil

Catawba Crape Myrtle | *Lagerstroemia 'Catawba'*

Crepe-like flowers provide the perfect pop of purple in the spring and show-stopping orange-red foliage in the fall. The colorful flowers attract bees, butterflies and birds.

Mature Height: 15 feet | **Zones:** 7-10, 14, 18-21

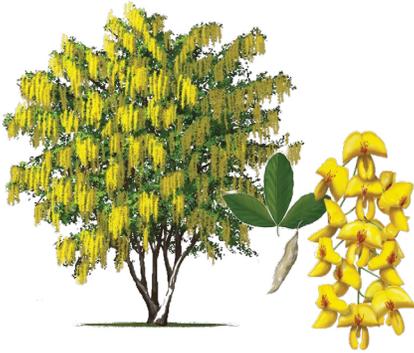
Deciduous

☀️ 💧 Full Sun Well-Drained Soil



Recommended small trees

★ = California native



Goldenchain Tree | *Laburnum watereri*

A flexible tree that can be trained to grow over an arbor, pergola or other structure, and can be pruned into an espalier. A good choice for lawns and moderately moist landscaping areas.

Mature Height: 25 feet | **Zones:** 1-3, 7-9, 14-17 | Deciduous

☀ Full Sun 💧 Well-Drained Soil



Crape Myrtle | *Lagerstroemia hybrids*

This small blooming tree provides striking summer colors and attractive fall foliage. It is drought tolerant and well-suited near a street, deck or patio.

Mature Height: 25 feet | **Zones:** 7-9, 14, 19-21 | Deciduous

☀ Full Sun 💧 Moist - Dry Soil



Little Gem Magnolia | *Magnolia grandiflora* x 'Little Gem'

Fragrant white blossoms open to perfume the entire garden in late spring and turn into fuzzy brown cones with bright red seeds, which are used by a variety of wildlife. Well suited for a screen or hedge.

Mature Height: 20 feet | **Zones:** 7-9, 14-17 | Evergreen

☀ Full Sun 💧 Moist Soil

Chaste Tree | *Vitex agnus-castus*

This dense, rounded shrub requires minimal shearing. Spikes of purple or white flower clusters and inedible berries appear in spring, bringing fragrant florals and attracting wildlife.

Mature Height: 25 feet | **Zones:** 4-24

Deciduous

☀ Full Sun 💧 Dry Soil

Snowdrift Crabapple | *Malus 'Snow Drift'*

Red buds open to long-lasting white blooms in spring. This tree attracts bees and birds, and its small orange-red fruit is edible.

Mature Height: 25 feet | **Zones:** 1-24

Deciduous

☀ Full Sun 💧 Well-Drained Soil



Recommended small trees

★ = California native



Star Magnolia | *Magnolia stellata*

Hardest of the magnolias, its white flowers bloom in spring before the leaves appear. Fall brings copper and yellow leaves, and winter brings a silhouette of grayish-white bark.

Mature Height: 20 feet | **Zones:** 2b-9, 14-24 | Deciduous

☀ Full Sun 💧 Moist Soil



Wild Plum | *Prunus americana*

The decorative value of this tree is in its long, wand-like branches that are attractive in winter. In spring, it is covered with white flowers, followed by abundant bright foliage and fruit that attracts birds.

Mature Height: 25 feet | **Zones:** 1-3 | Deciduous

☀ 🌑 Full Sun - Partial Shade 💧 Moist - Dry Soil



Pomegranate | *Punica granatum*

This tree has beautiful orange-red, trumpet-shaped flowers in spring and produces edible fruit. It has beautiful fall colors and mottled bark. It is good as a hedge and is fire resistant.

Mature Height: 20 feet | **Zones:** 7-9, 14-24 | Deciduous

☀ 🌑 Full Sun - Partial Shade 💧 Moist - Dry Soil

Common Myrtle | *Myrtus communis*

An elegant, rounded shrub with dense, finely textured foliage and small white flowers which give way to purplish-black berries. Easy to maintain with little or no shearing.

Mature Height: 20 feet | **Zones:** 8-24

Evergreen

☀ 💧 Full Sun Dry Soil

Lemon-Scented Tea Tree | *Leptospermum petersonii*

Featuring fragrant, showy white flowers, this tree attracts bees and butterflies. It has an open growth habit with arching branches and can be pruned to expose a multi-trunk form.

Mature Height: 20 feet | **Zones:** 14-24

Evergreen

☀ 💧 Well-Drained Soil

Recommended small trees

★ = California native



Mescal Bean | *Sophora secundiflora*

This tree exhibits a beautiful spring display of extremely sweet, fragrant violet-blue and sometimes white flowers. Later, the flowers become hairy seed pods that contain poisonous but decorative red seeds.

Mature Height: 25 feet | **Zones:** 7-9, 14-16, 19-24 | Evergreen

☀️ 🌿 Full Sun - Partial Shade 💧 Moist - Dry Soil



★ Blackhaw | *Viburnum prunifolium*

This is a versatile small tree with red fall color that attracts birds and butterflies. The sweet, edible fruit is bluish-black and ripens in early autumn. Plant in a sunny location for fruit development.

Mature Height: 20 feet | **Zones:** 1-3, 7-9, 14-21 | Deciduous

☀️ 🌿 Full Sun - Partial Shade 💧 Moist Soil

IMPORTANT SAFETY NOTE

Trees with mature heights above 15 feet should be planted at least 50 feet away from distribution powerlines.

Trees with mature heights above 10 feet should be planted at least 60 feet away from transmission powerlines.

For details on our safe planting distances, please see page 3. For safety, PG&E may have to remove any incompatible vegetation.

If you are not sure if a powerline is distribution or transmission, please call us at **1-800-743-5000**.



Additional resources

Thank you for planting safely

This guide includes just a few examples of trees that we recommend planting near distribution powerlines. Consult with your local nursery on other species and varieties.

Learn more

For more information on planting safely near PG&E equipment

→ pge.com/righttreerightplace

To learn more about how we are keeping trees away from powerlines

→ pge.com/trees

To research suitable trees for your area

→ selectree.calpoly.edu

→ calscape.org

For details on how to create defensible space near your home

→ readyforwildfire.org

Contact us

- If you have any questions about vegetation near powerlines, please contact us at **1-877-295-4949** or wildfiresafety@pge.com.
- For questions about vegetation near gas pipelines, please call **1-800-743-5000**.

Plans for new buildings and major landscaping projects must be reviewed by PG&E to avoid any interference with our equipment. Please submit your plans to PGEPlanReview@pge.com.

Keeping the power on and your community safe

Each year, we inspect our equipment to address vegetation that is too close to powerlines and could cause a power outage or wildfire.

We know how much trees mean to our communities and we are committed to helping you plant safely. By following Right Tree, Right Place planting guidelines, we can work together to keep each other safe.



To learn more and view safe planting guidelines for other regions, please visit pge.com/righttreerightplace.



Sunset Climate Zone maps and information are courtesy of The Sunset Plant Collection. Illustrations Copyright © 2019 Robert O'Brien

Some of the measures included in this document are contemplated as additional precautionary measures intended to further reduce the risk of wildfires. "PG&E" refers to Pacific Gas and Electric Company, a subsidiary of PG&E Corporation. ©2025 Pacific Gas and Electric Company. All rights reserved. CCC-0225-5133. 03/03/2025.