



ELECTRIC TRANSMISSION RIGHT-OF-WAY ENCROACHMENT POLICY

The use of electric transmission line right-of-ways for purposes other than company transmission must be controlled in order to protect Dominion Electric Transmission's facilities. Reliability, public safety, access and ease of maintenance are some of the key issues in considering non-transmission uses of transmission line right-of-way.

Consideration will be given to any proposed non-transmission use of Dominion Electric Transmission's leased or purchased right-of-way if:

- In accordance with the terms of the easement agreement for the right-of-way involved.
- Consistent with the safe maintenance and operation of transmission lines.
- Not restricting future line design flexibility.
- Not permanently interfering with future construction.

Prior written approval must be obtained for all encroachments. A letter of consent must be signed by the Electric Transmission Coordinator Right-of-Way and the property owner. The letter is necessary for each case when such use is being requested by the property owner.

Should any encroachment be determined to be unsafe at a future date, the unsafe condition will be corrected or removed at the owner's expense within 45 days after written notification by Dominion Electric Transmission.

Any unauthorized non-transmission use of the right-of-way will require prompt action to either eliminate the encroachment or to process a formal request for its approval.

OBTAINING APPROVAL FOR USE OF TRANSMISSION LINE RIGHT-OF-WAY

A request from the property owner, permittee, distribution or other utility for permission to encroach is initially investigated by the right-of-way management representative. The right-of-way management representative is responsible for determining that adequate and appropriate information has been secured concerning the details of the encroachment, and that the encroachment is acceptable from an operations, construction, and maintenance standpoint. Encroachment requests which should be disapproved immediately by the right-of-way management representative include the following:

- House, office, or construction trailer.
- Building or any portion thereof (includes house, garage, porch, deck, shed, playhouse, etc.).
- Septic tank or well.
- Swimming pool or any portion thereof (above and below ground).
- Sailboat.
- Trash receptacle or dumpster.
- Inhabited vehicle.
- Television antennas to include satellite dish antennas.

Other types of encroachments may be permitted provided that:

- The encroachment(s) do not violate the terms of the easement for the parcel(s) under consideration.
- The encroachment(s) are within the following guidelines:

DISTRIBUTION AND/OR COMMUNICATION LINES

The following guidelines apply to lines belonging to either Dominion Virginia/North Carolina Power or to other utilities.

Lines Along Transmission Right-of-Ways

It is necessary to coordinate all distribution construction on the basis of the ultimate use of the transmission right-of-way. All such distribution construction will be approved by the Electric Transmission Coordinator Right-of-Way. In general, transmission right-of-ways greater than 100 feet in width will accommodate distribution circuits 15 feet in from the edge of the right-of-way. Greater distances can be tolerated if the transmission structures are adequate in height.

Height of Structures and Conductors

The height of structures and conductors of distribution lines must meet the following:

- The conductors of transmission circuits must have adequate clearances from the distribution circuit under the NESC.

- Where a distribution line parallels a transmission line, it must be so designed that any distribution structure in falling clears the nearest transmission structure and guys by at least 10 feet.

Crossing

- Lower voltage conductors must be physically located below the higher voltage conductors.
- Overhead crossings will be made at approximately a right angle (45 will be the minimum accepted). The point of crossing should be not less than 25 feet, no more than 100 feet, from a transmission structure.
- Tie wires will not be relied on to hold the distribution conductor in uplift. Dead end construction will be used where uplift results under any loading conditions.
- Poles, crossarms, conductors, and guys of distribution lines will not be installed closer than 25 feet to transmission poles, crossarms, or towers. Conductors of distribution lines will not be installed closer than 10 feet to guys of transmission lines. Conductors of the distribution lines will, in no case, be under guys of transmission lines.
- Underground crossings will be made at approximately a right angle (45 will be the minimum acceptable). All underground facilities and associated ground mounted accessories will be located at least 25 feet from transmission structures.
- Underground pipes, cables, conduits, etc. will be located with a minimum of 36 inches of cover measured from the top of the pipe, cable, conduit, etc. to existing ground elevation.
- Clearance to transmission conductors operating at 194° F or higher design temperatures. The following vertical separation between circuits will be maintained for all circuits crossing under transmission lines or constructed on transmission right-of-ways.

Upper	69kV	115kV	138kV	230kV	500kV
Lower					
69kV	5.5	6.5	7.0	9.0	15.0
115kV	6.5	7.5	8.0	10.0	16.0
138kV	7.0	8.0	8.5	10.0	16.5
230kV	9.0	10.0	10.0	12.0	18.5
500kV	15.0	16.0	16.5	18.5	24.0
Guy/Shield Wire	7.0	8.0	8.5	10.0	16.5

- **Greater clearance may be provided when practical, and in every case, clearance requirements of the National Electrical Safety Code will be met.**

Rebuilding Existing Crossings or Parallelism

When it is necessary to rebuild existing distribution or transmission lines at crossings or parallelism which do not conform to these requirements, the crossings or parallelism will be brought into conformity.

DITCHES

Drainage ditches of such depth as to obstruct travel along or access to the right-of-way is discouraged, unless such ditches are provided with culverts or bridges installed and maintained at no cost to Dominion Electric Transmission. Culverts and bridges are designed to support constant traffic crossings by heavy construction and maintenance equipment. If any counterpoise (ground wire buried 18 to 24 inches deep) is damaged cut, or severed, the property owner will notify the right-of-way management representative so necessary repairs can be made by Dominion Electric Transmission at the expense of the responsible party.

- Ditches will be located no closer than 50 feet to any company facility.

DRAINFIELDS

Drainfields may be permitted on the right-of-way provided they are no closer than 50 feet to any transmission pole, tower, structure, guy, or anchor. Drainpipes may be permitted on the right-of-way provided they are no closer than 25 feet to any transmission pole, tower, structure, guy, or anchor. The pipeline burial depth, measured from the top of the septic drainfield pipelines to the existing ground elevation, shall be as near to thirty-six 36 inches as possible. The septic drainfield pipelines shall be designed to support constant traffic crossing by heavy construction and/or maintenance equipment.

[AASHTO designation HS20-44 wheel loading capability does not apply with drainfields. Earth compaction is unsuitable for drainfield construction. Also, if standard pipeline burial depth is unattainable due to the pitch of the drainfield or a high water table, the requestor assumes responsibility for crushed pipes, unless the easement states otherwise.]

FENCES

Fences will be permitted, provided they do not interfere with or endanger the construction, operation, or maintenance of company facilities and are effectively grounded by the property owner. The property owner should have the fence design approved prior to installation.

An access gate must be provided by the property owner. The gate will be a minimum of 14 feet in width; however, 16 feet is preferred.

No fence shall be permitted closer than 25 feet to any transmission pole, structure, guy or anchor.

FILL MATERIAL

Clean fill material may be placed on Dominion Electric Transmission's right-of-way to within 50 feet of any existing or proposed transmission structure. In all cases, no fill will be allowed until the proposal is reviewed by the Electric Transmission Coordinator Right-of-Way to ensure proper grade and operating clearances.

LIGHTING

Lighting for parking areas and roadways will be permitted provided that:

- Poles and fixtures are not located directly under the transmission conductors.
- Height of poles with fixture attached do not exceed 15 feet.
- Worst case sag clearance: 115 kV – 11.5 feet, 230 kV – 14 feet, 500 kV – 20 feet.

MATERIAL STORAGE

Material storage will be allowed if provisions are met as follows:

- It is nonflammable.
- It may be readily moved to avoid conflicts with future construction.
- Storage is placed on the edge of the right-of-way easement boundary line
- It is stored to a maximum height of 13 feet and 6 inches and is not closer than 10 feet to a vertical plane projected down from any conductor of the line.
- It does not involve lines operating at a voltage of 500 kV.
- It is not within 50 feet of any structure or guy, and does not interfere with access to structures along the right-of-way.
- The owner agrees to remove material upon 45 days written notice by Dominion Electric Transmission, should such material interfere with future construction or maintenance work.
- Trash receptacles and dumpsters shall not be permitted on the right-of-way.

- No dumping of household refuse, motor vehicles, tires, appliances, brush, or any other debris or waste material, shall be permitted on right-of-way.

PARALLELISM - GENERAL

Parallelism along transmission lines should normally be made along the outer edges of the transmission right-of-way no more than 15 feet in:

- Roadways, gas and fuel lines should not parallel transmission right-of-ways for more than 200 feet. License Agreements (SEE Figure 2-5) will be used for parallels greater than 200 feet in length and will have associated charges.
- Parallelism should not interfere with proposed distribution use for this area of the right-of-way.

PIPELINES

Pipelines will be permitted to cross or parallel transmission right-of-way in locations approved by Dominion Electric Transmission if provisions are met as follows:

- No grading or excavation will be done within 50 feet of any company pole, tower, structure, guy or anchor.
- A minimum of 36 inches of cover measured from the top of the pipe to existing ground elevation is to be maintained.
- A minimum distance, as required by OSHA, is to be maintained between the electrical conductors and the construction/maintenance equipment.
- Blasting on the right-of-way is to be avoided if possible. If it is unavoidable, a minimum explosive charge and matting must be used to prevent damage to the transmission lines, and the blasting plan must be approved by right-of-way management representative.
- Permanent identifying markers are to be placed, by the pipeline company, directly over the pipeline at the points it enters and leaves the right-of-way, as well as, at every angle in the pipeline where the pipeline is on and parallel to the right-of-way.
- Pipes will be designed to support constant traffic crossings by heavy construction and/or maintenance equipment.
- Blowdown discharge valves must be located in accordance with the requirements of the U.S. Department of Transportation's Pipeline Safety Regulations. The valves must discharge away from the transmission conductors.

- If any counterpoise (ground wire buried 18 to 24 inches deep) is damaged, cut, or severed, the pipeline company or their contractor will notify the right-of-way management representative so necessary repairs can be made by Dominion Electric Transmission at the expense of the responsible party.
- If a cathodic protection system is used to protect the pipeline, it will not cause corrosion in the counterpoise or any other part of the transmission line.
- The contractor gives the right-of-way management representative five days notice before starting construction on the right-of-way, and pays the costs of Dominion Electric Transmission maintaining an inspector on the job should such appear to be necessary.
- No manholes, junction boxes, valve boxes, or fire hydrants will be placed on transmission right-of-ways.

PONDS & BMP's

- Ponds are permitted if they do not interfere with access to transmission structures, endanger transmission structures and/or conductors, or create a hazard to the public.
- Swimming pools and/or any portion thereof will not be permitted on the right-of-way.
- Sailboats will not be allowed.
- Total pond size will be less than 20 acres.
- No portion of any pond may be within 100 feet of any structure, guy, or anchor.
- Must have access road around pond/BMP for trucks and employees.

RECREATIONAL USES

The following recreational uses may be permitted under the conditions as follows:

- The use of slides, swings, and other recreational structures on the edge of the right-of-way, if they are under 10 feet in height.*

***Note:** All accessory structures such as swings, slides, fences, basketball goals, etc. if metallic, must be effectively grounded.

- The use of tennis courts, if backstops do not reduce required clearances and do not interfere with the safe and efficient operation and maintenance of our facilities.
- The use of basketball courts, if placed at the edge of the right-of-way.

- The use of bridle paths and bicycle trails.
- The use of picnic areas, if the height of accessory structures on the right-of-way are under 10 feet and are located 25 feet or more from transmission poles, guys, or structures.
- The use of satellite dish antennas is not permitted on the right-of-way.

REMOVAL OF TOPSOIL AND GRAVEL

The property owner may remove topsoil and gravel from portions of the right-of-way not occupied by Dominion Electric Transmission's facilities. In such cases the owner must maintain a minimum island of natural material with a radius of 50 feet at the ground surface around all facilities. The slope ratios (normally 3:1 or less) and transmission line access must be designated by the Electric Transmission Coordinator Right-of-Way. Access to these facilities will be maintained at all times. If any counterpoise (ground wire buried 18 to 24 inches deep) is damaged, cut or severed, the property owner will notify the right-of-way management representative so necessary repairs can be made by Dominion Electric Transmission at the expense of the responsible party.

ROADS AND RAILROADS

Roads and railroads will be permitted in accordance with the terms of the existing easement agreement from the parcel under consideration, and if provisions are met as follows:

- No road or railroad track is to be within 50 feet of any company pole, tower, structure, guy, or anchor.
- They do not permanently obstruct any portion of the right-of-way, preventing future electric line structure installation.
- A road or railroad should generally not parallel the right-of-way for more than 200 feet.
- Clearances between the road or the railroad track and the electric line conductors on the right-of-way must be adequate for the maximum conductor operating temperature. (Line design will control maximum operating temperature.) Where the clearances are not adequate, the electric line may be reconstructed to provide adequate clearance if Dominion Electric Transmission is reimbursed for the cost of providing such clearance.

Note: An approved encroachment for a roadway to be taken into the Virginia Highways System will result in the quitclaim of that portion of our easement to VDOT. If a future highway project necessitates relocation of the facilities

within the quitclaimed area, current VDOT policy allows only for the payment of VDOT termed "nonbetterment" relocation costs.

Also, the CE-7 permit application, prepared by Dominion Electric Transmission, will state that we shall "retain ingress/egress rights at the location indicated on the attached plat". In North Carolina, ingress/egress rights **must** be retained.

SIGNS

Signs will be permitted if the following provisions are met:

- No portion of the sign is closer than 25 feet to any conductor.
- They do not exceed 12 feet in height.
- If they interfere with replacement, construction, rearrangement or maintenance of lines in the future, they will be removed or relocated at the owner's expense within 45 days after written request by Dominion Electric Transmission. If the sign is not removed by the owner in thirty days, it can be removed by Dominion Electric Transmission without liability.

SPRINKLER OR IRRIGATION SYSTEM

Lawn sprinkler systems or irrigation systems may be approved if:

- No portion of any sprinkler system or irrigation system comes closer than 50 feet to any portion of any pole, tower, structure, guy, or anchor.
- Permanent identifying markers are placed at the location of each sprinkler head.
- Permanent identifying markers will be installed where the pipes enter and leave the right-of-way or makes any turns.
- The spray from the irrigation system comes no closer than 10 feet to any conductor, pole, tower, structure, guy, or anchor.
- If any counterpoise (ground wire buried 18 to 24 inches deep) is damaged, cut, or severed, the property owner will notify the right-of-way management representative so necessary repairs can be made by Dominion Electric Transmission at the expense of the responsible party.
- No junction or valve boxes can be constructed on the transmission right-of-ways.
- A minimum of 12 inches of cover measured from the top of the pipe to existing ground elevation is to be maintained.

- Pipes shall be designed to support heavy traffic or the requestor will assume responsibility for crushed pipes.

TREES, SHRUBS, AND GARDENS

The planting of nursery stock and selected trees, shrubbery, and flowers on the right-of-way may be permitted.

- Electric Transmission Right-of-Way Management maintains a list of species per region that may be planted on the transmission line right-of-way within the conductor area. These species cannot exceed ten (10) feet in height at maturity. Please request the list from the appropriate right-of-way management representative.
- Electric Transmission Right-of-Way Management maintains a list of species that may be planted on transmission line right-of-way between the edge of the right-of-way and no closer than ten (10) feet from the vertical plane of the nearest conductor. Please request the list from the appropriate right-of-way management representative.

To maintain access to the transmission line, planting is not permitted under the following conditions:

- On a 16-foot strip reserved for vehicular travel, the location of which is to be designated by Dominion Electric Transmission.
- Within 25 feet of a transmission structure.
- On a 20-foot wide access strip between the 16-foot reserved strip and structures.
- The growth of general nursery stock will be allowed under the same conditions as above, if the location is approved by the Electric Transmission Coordinator Right-of-Way.
- Dominion Electric Transmission will assume no responsibility for fruit trees, conifers, nursery stock or shrubs planted within the right-of-way which may be damaged as a result of construction or maintenance work, including chemical control of brush.
- 45 days written notice will be given to the property owner by the right-of-way management representative to trim or remove shrubs or trees exceeding the above limitations, or if they interfere with construction and maintenance of Dominion Electric Transmission's facilities. If not corrected within 45 days, Dominion Electric Transmission may remove the shrubs or trees at the property owner's expense.

- Vegetable and flower gardens are normally permitted by the easement agreement and a letter of consent is not needed. Approval of gardens can be granted verbally by right-of-way management representative.

VEHICLES / PARKING LOTS

Vehicles may be parked on the right-of-way provided that:

- They do not exceed a height of 13 feet and 6 inches. Preference is they are parked on the edge of the right-of-way.
- They are neither house, office, nor construction trailers.
- They do not carry explosives or flammable cargo.
- They are operative and the parking is of a transient nature.
- No vehicle is to be parked within 25 feet of any company pole, tower, structure, guy or anchor.
- The owner supplies, installs, and maintains barriers of a design approved by Dominion Electric Transmission to prevent vehicles from accidentally striking company facilities.
- Boats must be mounted on trailers. When mounted on a trailer, the boat, including antennas and other accessories, must not exceed a height of 13 feet and 6 inches. No sailboats are allowed on the right-of-way.
- The vehicles and trailers have current license and inspection decals and will not violate any local codes.
- No inhabited vehicles are permitted on the right-of-way.

SUBMISSION OF ENCROACHMENT REQUEST TO ELECTRIC TRANSMISSION RIGHT-OF-WAY MANAGEMENT

Right-of-way management personnel shall prepare the formal encroachment request. It shall be forwarded to the Electric Transmission Coordinator Right-of-Way and a copy retained by the preparer. The formal encroachment request shall contain all information necessary to properly evaluate and respond to the encroachment request. This includes a memorandum stating whether or not the encroachment conforms to company policies and procedures, the proper recommendations (approve or deny), a written request, and the following information:

- Requestors (property owner or other utility) names, address, and telephone number.

- A description of the proposed encroachment.
- The reason for the encroachment.
- The location of the encroachment (include a vicinity sketch or sufficient written directions to get to location).
- All transmission line number and structure numbers involved.
- Any specific conditions involved.
- Pertinent considerations (time constraints, other known encroachments in the area, etc.)
- State DOT right-of-ways boundary recommendations regarding the encroachment or statement that the encroachment is not wholly within State DOT right-of-way boundary.
- Copy of the Plan and Profile sheet for each transmission line involved with the structure on either side of the proposed encroachment clearly marked. The encroachment shall be super-imposed on the Plan and Profile, accurately plotted to scale and highlighted.
- Distance to the adjacent structures shall be shown.
- Angles of crossings shall be shown in degrees relevant to the transmission centerline.
- Heights and depths shall be shown in the profile view (whenever applicable).
- North Arrow.
- Nearest state highway crossing.

Upon approval of the encroachment on our easement, the Electric Transmission Coordinator Right-of-Way prepares and signs a letter of consent and forwards the original to the Requestor. A copy of all exhibits, memoranda, and other attachments to the letter of consent are sent to the right-of-way management representative.

If the encroachment involves fee-owned property of Dominion Electric Transmission, the Electric Transmission Coordinator Right-of-Way will coordinate all responses to the final disposition of the request.

When construction on the right-of-way being considered by others could temporarily endanger an operating transmission line, the letter authorizing the permit should include suitable statements requiring the owner to notify the right-of-way management representative five days prior to the construction.

Upon receipt of such notice, the right-of-way management representative will immediately alert the appropriate transmission personnel and, if necessary, inspect the construction work.

Requestor must sign all originals and retain one for his personal/company files. All parties to the multiparty agreement will retain one original. A photocopy of the *executed letter of consent* returned to the right-of-way management representative is to be retained in their location. The original *executed letter of consent* is to be forwarded to the Electric Transmission Coordinator Right-of-Way who will update the appropriate files.

COMPANY PROPERTY EASEMENT CONCERNS*

Where requested facilities are to be located on company easement, a determination must be made as to what Dominion Electric Transmission's property rights are. Certain transmission lines are located on company property owned in fee. In other cases, facilities exist on easements which vary in scope. Where Dominion Electric Transmission has only easement rights, the following types of dispositions are possible. Granting of a Letter of Consent (SEE Figure 2-6). This merely states that the specified use will not interfere with Dominion Electric Transmission's easement rights (can be conditional). It creates no property rights for the Requestor and should be revocable to accommodate future uses on Dominion Electric Transmission's easement. Although the letter can be made assignable, the Requestor should be aware that no easement rights are granted: an easement must be obtained by the Requestor from the fee owner. All costs to relocate facilities in the future are to be borne by the Requestor. The document is not usually in recordable form.

***Note:** In general it is not desirable to encumber company property by granting an easement.

HANDLING UNAUTHORIZED NON-TRANSMISSION USE RIGHT-OF-WAY ENCROACHMENTS

Determination must be made if the terms of any agreement or easement have been violated. A copy of all correspondence should be sent to the Electric Transmission Coordinator Right-of-Way.

The right-of-way management representative will request, from the property owner or entity responsible for the encroachment, a formal letter requesting approval when:

- The Electric Transmission Coordinator Right-of-Way determines that an encroachment request was never made.
- The right-of-way management representative determines if authorization should be considered.

If the encroachment involves fee-owned property of Dominion Electric Transmission, the Electric Transmission Coordinator Right-of-Way will coordinate all responses to the final disposition of the request.

If any employee discovers an unauthorized encroachment and determines that it compromises the safe maintenance and/or operation of the transmission line(s), they should inform the right-of-way management representative who will take necessary action to have the encroachment removed in a timely manner. The right-of-way management representative will follow up to determine that the encroachment has been removed.

EXECUTIVE SUMMARY

House Joint Resolution No. 153 of the 2004 Regular Session of the Virginia General Assembly requested the State Corporation Commission to study the feasibility, costs and funding options relative to the placement of currently existing overhead utility distribution lines, and any new distribution lines, underground. The resolution was passed in anticipation that placing distribution lines underground (1) would reduce the number of weather-related utility disruptions, (2) may reduce utility line maintenance costs, and (3) would minimize the visual pollution in the Commonwealth. In the conduct of this study, participation of interested parties was solicited and various state and international studies were reviewed.

The primary advantages of underground circuits are improved aesthetics and overall improved reliability. In addition, underground rights-of-way require little tree trimming and underground facilities are much less susceptible to motor vehicle accidents. However, the relocation of currently existing overhead lines would result in tremendous costs and significant disruptions. In addition, a major relocation initiative could take decades to complete and encounter complications regarding underground damage prevention and attainment of new easements.

The cost associated with the placement of the currently existing overhead electric utility distribution facilities underground was estimated by utilities to be over \$80 billion. The resultant annualized revenue requirement on a per customer basis would be approximately \$3,000. The additional cost to bury existing overhead telecommunications and cable television lines was estimated to be approximately \$11 billion.

The potential benefits, both to the utilities and to the economy, resulting from the elimination of tree trimming maintenance, vehicle accidents, post storm restoration and lost sales during outages, do not appear to be sufficient to offset the initial construction costs associated with a comprehensive program to relocate the currently existing overhead utility distribution lines to underground. The placement of all new distribution lines underground, though not as costly, is also probably not cost effective.

Regardless of the funding options available for a comprehensive statewide initiative, the costs would be paid ultimately by consumers, either directly or indirectly, in the form of prices, taxes, or utility rates. Anecdotal

evidence suggests that consumers might not be willing to pay the costs necessary to fund a comprehensive statewide initiative.

Based on our research and analysis and input from interested parties, the wholesale relocation of the currently existing overhead utility distribution lines and placement of all new utility distribution lines underground is probably not reasonable. The economic effects of such an effort on state and local governments or utilities, and ultimately consumers, would be significant. Recent studies by the Public Staff of the North Carolina Utilities Commission, the Maryland Task Force to Study Moving Overhead Utility Lines Underground, and the Edison Electric Institute support these conclusions.

While a comprehensive statewide relocation initiative does not appear to be reasonable from an economic viewpoint, certain localities and their citizens might value the aesthetic benefits enough to be willing to plan, implement and fund a local undergrounding initiative. It appears that localities can require the placement of new distribution lines underground, but it is not clear if they have the authority needed to mandate the relocation of existing overhead lines underground.



SUGGESTED LIST OF PLANT SPECIES FOR SCREENING ON TRANSMISSION RIGHTS-OF-WAY

WITHIN CONDUCTOR AREA

(Defined as wire area plus 10 foot on either side and 25 feet around line structures/pole)

SHRUBS TO BE MAINTAINED AT 10 FOOT HEIGHT OR BELOW

Bridalwreath Spirea (*Spiraea prunifolia*)
Butterfly Bush (*Buddleia davidii*)
Doublefile Viburnum (*Viburnum plicatum* var. *tomentosum*)
Dwarf Mugo Pine (*Pinus mugo* var. *mugo*)
Dwarf Winged Euonymous (*Euonymous alatus* ‘compacta’)
European Cranberry Bush (*Viburnum opulus*)
Flowering Quince (*Chaenomeles speciosa*)
Forsythia (*Forsythia X intermedia*)
Glossy Abelia (*Abelia grandiflora*)
Inkberry Holly (*Ilex glabra*)
Japanese Barberry (*Berberis thunbergi*)
Japanese Holly (*Ilex crenata*)
Leatherleaf Mahonia (*Mahonia bealei*)
Nandina (*Nandina domestica*)
Northern Bayberry (*Myrica pensylvanica*)
Old Fashioned Weigela (*Weigela florida*)
Pfitzer Juniper (*Juniperus chinensis* ‘pfitzeriana’)
Redtwig Osier Dogwood (*Cornus sericea*)
Sargents Crabapple (*Malus sargentii*)
Vanhoutte Spirea (*Spiraea X vanhouttei*)
Wintergreen Barberry (*Berberis juliannae*)

**SUGGESTED LIST OF PLANT SPECIES
FOR SCREENING ON TRANSMISSION RIGHTS-OF-WAY**

OUTSIDE CONDUCTOR AREA

(Defined as portion of right-of-way 10 foot horizontal width or greater from overhead wire, typically along edge on both sides)

**LARGE SHRUBS/SMALL TREES TO BE MAINTAINED
AT 10 FOOT HEIGHT OR BELOW**

American Hazelnut (*Corylus cornuta*)
Amur Maple (*Acer ginnala*)
Burning Bush
Crape Myrtle
Dark American Arborvitae
Davidson's Hardy Ligustrum
Dr. Kassab Holly
Dwarf Burford Holly (*Ilex cornuta* 'bufordi nana')
Eastern Red Cedar (*Juniperus virginiana*)
Fraser Photinia (*Photinia fraseri*)
Fringetree (*Chionanthus virginicus*)
Foster Holly
Holly Osmanthus (*Osmanthus heterophyllus*)
Kousa Dogwood (*Cornus kousa*)
Leatherleaf Viburnum (*Viburnum rhytidophyllum*)
Rose of Sharon (*Hibiscus syriacus*)
Sasanqua Camellia (*Camellia sasanqua*)
Saucer Magnolia
Shadblow Serviceberry (*Amelanchier canadensis*)
Smoketree (*Cotinus coggygria*)
Snowdrift Crabapple (*Malus snowdrift*)
Southern Wax Myrtle (*Myrica cerifera*)
Star Magnolia (*Magnolia stellata*)
Thorny Elaeagnus (*Elaeagnus pungens*)
Washington Hawthorne (*C. phaenopyrum*)
Waxleaf Lucidum (*Ligustrum lucidum*)