

# Seattle City Light's Vegetation Management Unit

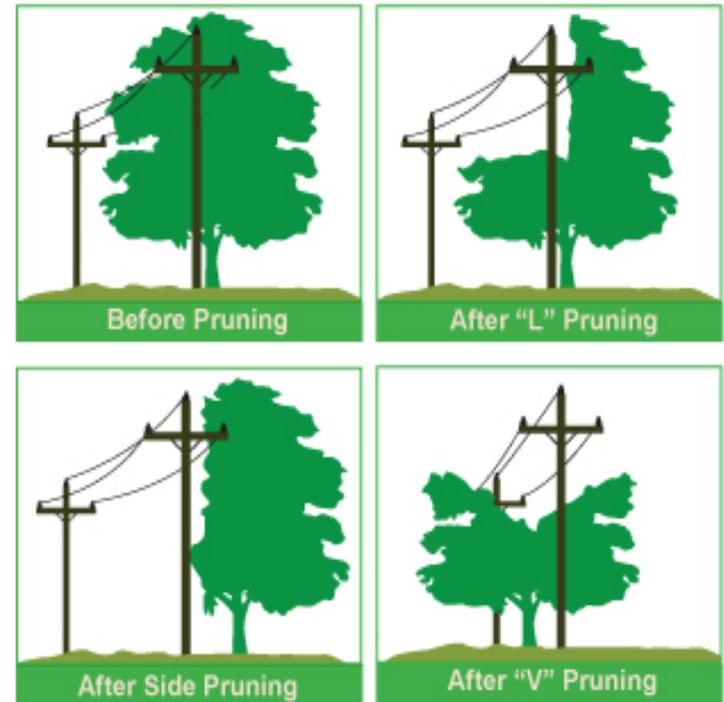


## **Mission:**

***Vegetation Management is committed to ensuring safe and reliable power delivery through the comprehensive and environmentally responsible management of the vegetation our lines and infrastructure impact.***

# Distribution Tree Trimming Program

- Maintains and monitors over 300,000 trees with grow/fall in potential
- Trims along 1,770 miles of overhead lines in Seattle and parts of Burien, Lake Forest Park, Normandy Park, Renton, SeaTac, Shoreline, Tukwila and Unincorporated King County.



Directional Pruning Methods



Seattle City Light

# Dist Tree Trim Methodology

- Feeder-based
- 4 yr. cycle for entire service area

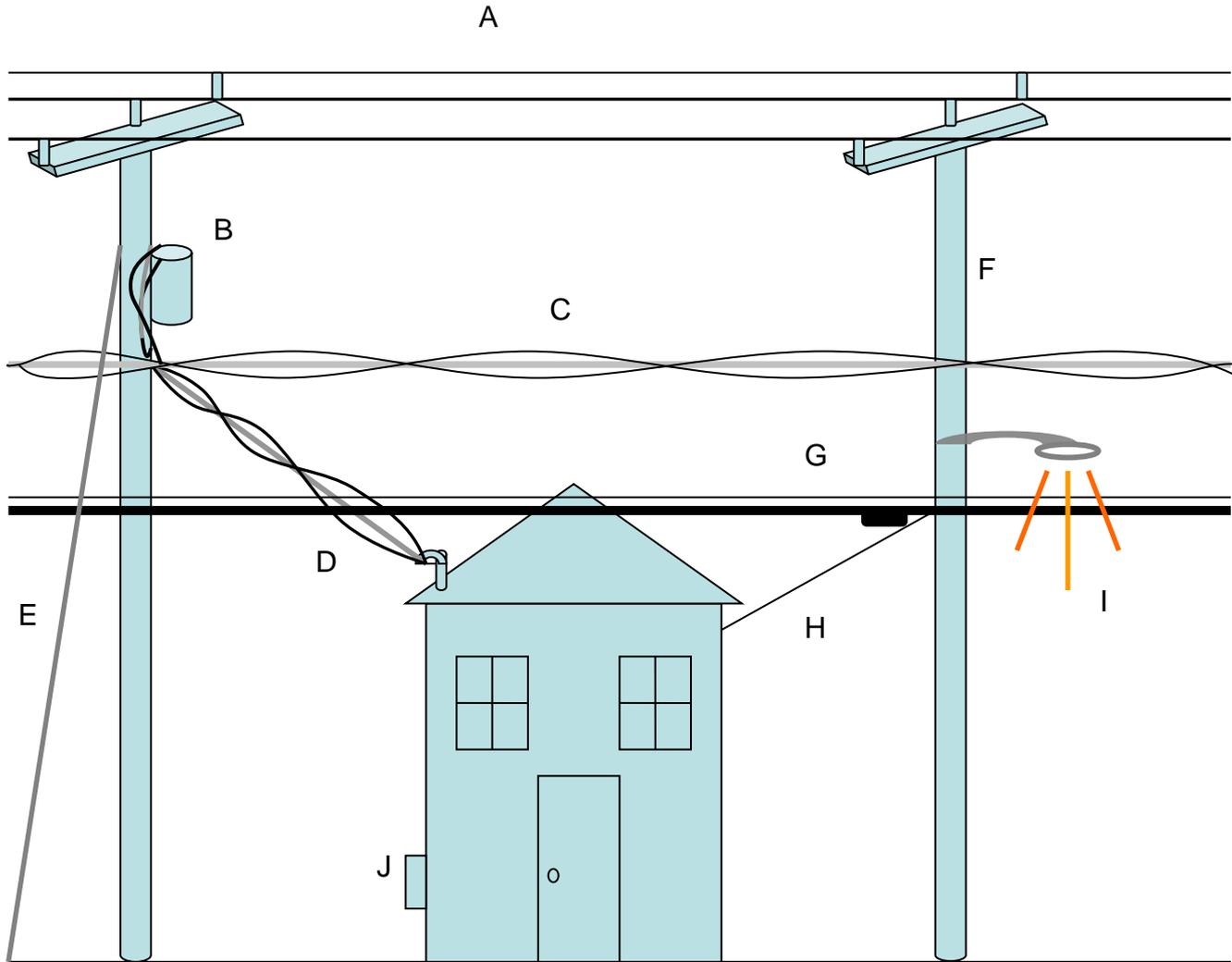


- All regular maintenance tree trimming done by contractor
- 10' min. clearance off primary and transformers as per WA WAC 296-24-960, 3-5' min. off secondaries and neutrals.

- Directional (“natural” or “drop-crotch”) Pruning – an increased focus on proper arboriculture produces “deeper” cuts 1<sup>st</sup> time around. No “rounding over” or “shaping”.
- All contractors are Journeyman Tree Trimmers or apprentices.
- All work audited by ISA Certified Arborists
- Better to remove and replant than top...but:
  - 64% of system workload is “crown reduction”
  - Industry standard is approx. 70% side trim

# Line Clearance Crews

- All regularly scheduled system maintenance trimming performed by contractors:
  - JTS Inc.
  - Asplundh Tree Experts Inc.
  - Kemp West Inc.
- Single In-House Seattle City Light crew for special projects, internal work, Transmission ROW work and emergency response



Typical  
Distribution  
System  
Facilities



Seattle City Light

# Transmission Right-of-Way Maintenance Program

- Manages vegetation along 657 miles of transmission right-of-way through King, Snohomish, Skagit, Whatcom and Pend Oreille counties.



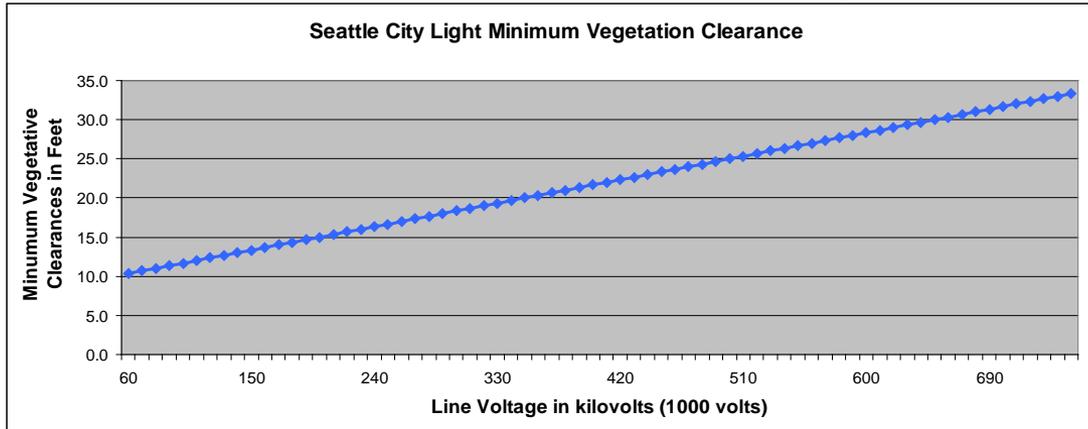
# Trans Cont'd

- - Work Managed on 4 yr. cycle informed by annual inspections.
- - Subject to Federal regulation (NERC and FERC).

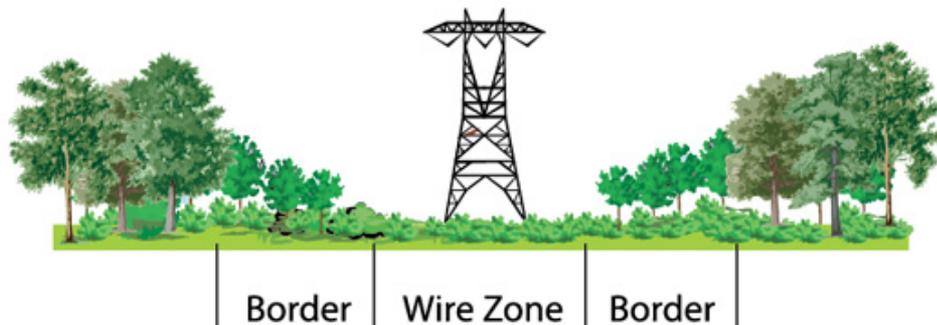


# Trans Cont'd

- Min Clearances determined by WA WAC



- Follow Wire-Zone – Border-Zone BMPs



# Importance of Regular Cycle Maintenance

- “Deferral of line clearance beyond an optimal cycle can result in increased costs...of 23% - 70% per unit” (2009 ACRT assessment).
- 71% of (distribution) trees are “medium” or “fast” growing species
- In 2006 after several years of not funding Veg. Mgmt we had over 875 outages due to vegetation, mostly trees. Since then the average has been about 182 outages/year.

# Urban Tree Replacement Program

- Promotes “Right Tree Right Place” information [www.seattle.gov/light/vegetation/utrp.asp](http://www.seattle.gov/light/vegetation/utrp.asp)
- Contracts with Washington State Nursery and Landscape Association (WSNLA) to provide Urban Landscape Tree Replacement Certificates for removals and replacements
- Partners with franchise cities to promote tree replacement in accordance with franchise city and Seattle City Light policies

# Where We're Going

- Treeline USA - 2013
  - National Arbor Day Foundation and National Association of State Foresters best practice designation (*Tree City USA* for utilities)
- Vegetation Management Software – 2013
- Tree Growth Regulators Pilot (with SDOT and Seattle Parks)
  - Pilot program begins 2013
  - Non-toxic growth hormone (gibberellic acid) inhibitor  
Chemical name: paclobutrazol
- ROW Steward Program in development (UAA, EPRI, TNC, Wildlife Habitat Council, U.S. EPA)