Vegetation Management in proximity to Power Lines

We all live in and around the forest. We all love living around trees. It is hard to imagine our communities without trees. With that comes some responsibilities:

- ✓ The type of tree planted near power lines has to be the right kind.
- ✓ Trees must be trimmed and, when necessary, removed. This is a shared responsibility. Nelson Hydro has an accountability for vegetation within our transmission and distribution corridors (Statutory Rights of Way, SRW), Nelson Hydro customers have the accountability to maintain vegetation on their properties such that it does not present, or cause, damage to Power Line infrastructure. If trees on private property are not properly maintained, may require consultation with property owner to arrange removal of "target trees".
- ✓ Where practical, when diseased trees are removed from city-owned boulevards, new trees are planted in their place.

Quote from Nelson Hydro's Operations & Power Line Crew Manager, Neal Dermody:
"Nelson Hydro's focus is to maintain our required clearances from all vegetation to ALL Transmission & Distribution circuits as a priority that ensures public safety and minimizes risk of power interruptions or fires started by contact."

Trees sometimes pose a danger to power lines and to our customers, and Nelson Hydro maintains a clearance power lines for public safety by removing or trimming trees as necessary.

The following are utility clearance requirements from vegetation;

- ➢ **60kV Transmission** Lines: - No less than five (5) meters. No overhanging vegetation.
- ➢ **25kV Distribution** Lines: - No less than three (3) meters for conifers, five (5) meters for deciduous. Overhanging branches will be cut as to maintain three (3) meters clearance when snow loaded.
- ➢ **Secondary Lines** (less than 750V): - No less than one (1) meter.
- ➢ **Communication** (TELUS, SHAW): - No less than one (1) meter.

It is interesting to note that more than half of power outages for Nelson Hydro are caused by trees and in order to reduce the number of outages, Nelson Hydro spends more than $500,000 annually to deal with vegetation growing in proximity to power lines.

Solutions to reduce the number of tree-related outages and our tree-trimming budget:

- ✓ Removing weak, diseased or hazardous trees
- ✓ Performing or encouraging regular pruning of trees near power lines.
- ✓ Educating people on what type of tree to plant near power lines.
- ✓ Herbicide application under permit.

The basic parameters are:

- ✓ Trees planted directly under, and within 5 metres on either side of the hydro pole, the maximum height at maturity is 6 metres or less.

- ✓ Trees planted within 5 to 20 metres from the hydro pole the maximum height at maturity is 12 metres.
- ✓ Trees planted more than 20 metres from the power lines can be virtually any strong, healthy tree.

Categories of vegetation encountered along Nelson Hydro power line corridors include:

- **Desirable vegetation** comprises species that when mature will not interfere with the power system or the overhead conductors, either due to their maximum growth height, proximity to the lines, or a combination of both. This includes ferns, grasses, sedges, wildflowers, and low-growing shrubs and trees. The vegetation management approach to all desirable vegetation is to encourage its retention and propagation. The presence of appropriate low-growing vegetation inhibits the growth of less desirable species.
- **Target vegetation** includes trees or shrubs growing on and adjacent to Nelson Hydro corridors that are likely to grow into or fall onto overhead conductors or interfere with other maintenance activities. In some cases, vines must be controlled because they can climb utility poles and can severely reduce access to structures and create electrical hazards.
- **Hazard (Target) trees** have a defect or adverse environmental condition that increases their risk of failure, and can do damage if they fall onto a power line, electrical equipment, buildings, people, etc. Tree risk assessments are used to identify hazard trees and those with significant risk indicators are prioritized for removal to protect public and worker safety, property, and power system assets.
- **Noxious weeds or invasive plants** are introduced plants that can compete with or displace native species and disrupt natural ecosystems. Their need for control is outlined in the Provincial Invasive Species Strategy and the *Weed Control Act*.

Nelson Hydro does not trim around service conductors to homes, which is the customer's responsibility. You can hire a licensed arborist, or do the work yourself. You can contact Nelson Hydro and, at no charge, we will temporarily interrupt the power line making it safe for you or your arborist to trim your tree(s).

More Information

For information on what type of trees to plant near power lines:

- ✓ On our website under Vegetation Management; http://www.nelson.ca/245/Vegetation-Around-Powerlines
- ✓ Contact us at **250-352-8240.**