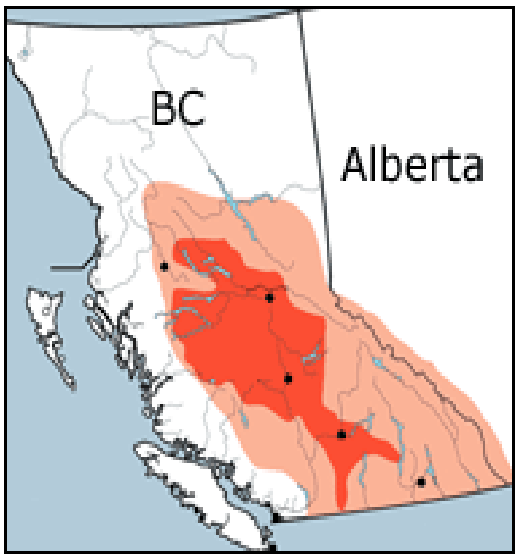
BC HYDRO FACES 10 MILLION DEAD TREES THREATENING POWER LINES.

BC hydro

The current mountain pine beetle (Dendroctonus ponderosae) outbreak in British Columbia is the largest that Canada has ever seen.
(Natural resources Canada, 2006, (http://mpb.cfs.nrcan.gc.ca/biology/introduction_e.html)).
About 8.7 million hectares were in red-attack stage in 2005 as a result of the mountain pine beetle (Government of BC, 2006 (http://www.for.gov.bc.ca/hfp/mountain_pine_beetle/)).

These insects typically play an important role in the life cycle of a forest. They attack old or weakened trees, speeding the development of a younger forest. However, unusual hot, dry summers and mild winters in central British Columbia during the last few years, along with forests filled with mature lodgepole pine, have lead to an epidemic. To date, beetles have destroyed millions of lodgepole pine in BC – the province's most commercially harvested tree.
(Natural resources Canada, 2006, (http://mpb.cfs.nrcan.gc.ca/biology/introduction_e.html)
Forestry sources estimate that 95% of the provinces lodgepole pines will be dead by 2011.

The beetles introduce a bluestain fungus into the sapwood of the tree that prevents the tree from repelling and killing the attacking beetles with pitch flow. It also blocks water and nutrient translocation within the tree. The joint action of larval feeding and fungal colonization kills the host tree within a few weeks of successful attack (the fungus and feeding by the larvae girdles the tree cutting off the flow of water and nutrients). (Natural resources Canada, 2006, (http://mpb.cfs.nrcan.gc.ca/biology/introduction_e.html)



The impacts of the beetle epidemic have imposed an enormous hazard to BC Hydro's electrical facilities. The magnitude of the dead and dying pine trees adjacent to high voltage power lines is immense. An estimated 10 - 12 million bug killed trees currently border the power lines and could pose a threat to the facilities province wide.

BC Hydro is currently implementing the largest hazard tree abatement program in their history. The BC Hydro MPB team (vegetation coordinators, James McKendry and Jeff Connors, Manager, Rick Walters) have been working to reduce the impacts of this epidemic since July of 2005. To date, the team has managed to reduce the hazard by 1.3 million trees.

Due to the scale and dynamic nature of this epidemic, several hazard abatement tactics and tools have been used during the program. The BC Hydro team has consulted and contracted professional foresters, biologists, archaeologists, loggers, certified utility arborists, and utility specialists. They also have coordinated efforts and worked in conjunction with the Ministry of Forests and Range, Ministry of Transportation, Ministry of Environment, Municipalities, Major forest licensee's, and small scale salvage programs.

The MPB hazard abatement program began with an inventory analysis and assessment primarily to map the magnitude of the problem and identify the worst areas to address first. Once these areas are identified, a team of consultants, foresters, and archaeologists proceed to the target areas to obtain consent, prepare forestry tenure applications and to ensure there are no other conflicting issues with heritage or historic sites.

Once the appropriate property information and work sites are aligned, the BC Hydro team proceeds with local work contracts or public tenders to initiate applicable crews to fell the trees. This can include single tree felling by CUA's, logging private property or logging provincial crown property. The goals are to reduce the threat of public safety, damage to the facilities, risk of fire and increase system reliability for our customers. A secondary goal is to maximize fibre recovery and minimize fuel loading from debris.

With the secondary goal in mind, a variety of options are discussed with the landowners prior to commencing the tree work. We often offer funds to the property owners to buy the wood from them, take the trees down and deliver it to a local mill. Many people with larger parcels of land have become overwhelmed by the numbers of trees on their private property and don't have the means or forestry knowledge to deal with this.

The focus so far has been in the northern interior regions of B.C. The results from the most recent southern interior assessment data suggests the problem is equally as great in the southern regions with an added twist coming from spruce and fir beetles and the fact that the Mountain Pine Beetle is infesting Ponderosa pine as well as lodgepole.

The program is designed to continue for a minimum of 10 years; addressing first trees within communities and secondly stands on a “worst first” basis. Conceivably, this program will continue forward for many years to ensure reliable delivery of power to the people of British Columbia.