Power Lines – Myths vs. Facts

LIVESTOCK, PETS AND HIGH VOLTAGE POWER LINES



The Myth:

Overhead high voltage power lines and associated electromagnetic fields (EMFs) have no negative impacts on livestock or pets.

The Facts: In addition to the many laboratory studies on the negative effects of EMFs on animals and cells, impor-

tant studies have been conducted on EMF effects on dairy cattle. Dairy cattle are not only a significant agricultural and economic resource, but are also important indicators of how EMFs probably affect other large mammals in the wild (e.g., bison, bighorn sheep, moose, mule deer, white-tailed deer [the last 3 species are found along EPCOR's and AltaLink's preferred and alternate routes for the Heartland line]).

- Exposure to electric and magnetic fields resulted in an average decrease of about 5.0% in milk yield, 13.8% decrease in fat corrected milk yield, and 16.4% decrease in milk fat among Holstein cows in Quebec (Burchard et al. 2003).
- Other studies show a weakening of the blood-brain barrier (Burchard et al. 1998) and negative changes in response to daylight hours (Rodriguez et al. 2004) in Holstein cows exposed to EMFs.

- ●The family of a French farm crossed by a high voltage power line reported breathing problems and weakened immune systems in both cows and pigs; abnormally low pig birth rates and high piglet mortality; and undersize heifers, some afflicted with hemorrhages or abortions and 10% milk loss (Agence France Presse 2008). A French Civil Court ruled in the family's favor and ordered the power company to pay for damages.
- •A study of pet dogs and cats exposed to above-normal EMF levels in Michigan (Marks et al. 1995) reported deformities in stillborn and surviving puppies and kittens. Female dogs ceased cycling or had abnormal "unbreedable" seasons. Male dogs revealed a lack of sperm. Neither Persian nor mongrel female cats showed signs of reproductive cycling.
- Pet dogs that lived in homes with abovenormal magnetic field levels had risks of canine lymphoma (cancer of the lymph system) up to 6.8 times the expected (Reif et al. 1995).

