BC Hydro ignores Health Risk Data, Losses in Property Values, and Safer Solutions

Jun-24-2016: At the Anmore Open House with BC Hydro yesterday on Jun/23/2016, it was obvious that BC Hydro is ignoring and misleading (1) health risk data, (2) losses in property values and (3) opposes any recommendations on safer solutions, such as safe underground lines. I was personally purposely quiet to allow much time for all the other residents great questions, comments, concerns and ideas pushing for safer solutions, since I already generated several letters and reports to the Ministries, residents and media. But here some comments I cannot resist:

(1) Health Risk Data - Just a bit more detailed information from reliable sources relating to high-powered line EMF emissions. In particular, a comprehensive report published by the Toronto Public Health in 2008 was already uploaded on our community based website "protectanmore.com", in order to put the correct numbers into a Canadian context:
Browsing through international studies, reports, reviews, and Agency/Alliance reports, average EMF emissions of less than 1mG are reported as usual background activity in urban areas, especially 0.4mG was reported in Toronto parks outside hydro corridors (see Toronto Report), and above 1mG long-term emissions there are starting risks for long-term effects. At average levels of 3-4 mG, a doubling of risk of childhood leukemia was published by the US National Institutes of Health (NIH) related to reports of the WHO International Agency for Research on Cancer (IARC) in 2002. Further, more recommendations are coming forward for above 1mG, with Jurisdictions in some countries that have adopted precautionary limits of as low as 2-10mG, some yet higher (but this may have changed over last 14 years). Further, the California Department of Education had implemented a "School Site Selection Guide for California Schools" up to 105m distances of high-powered lines (see Toronto report, relating to 2008).
The Toronto Public Health Report made extensive measurements of EMF emissions at various locations in Toronto and touching on some health risks and issues. In addition, the report further states: "... exposure to EMF might explain 1 to 3 of the leukemia cases in Toronto each year, or might increase the life-time risk of childhood leukemia by about 16 in 1 million for every increase in average exposure of 1.0 mG. Increases in risk of cancer of more than 1 in 1 million over a lifetime are often considered sufficient for action...".
Explanation: In this context, an increase in total average exposure by about 1 mG means, when people are exposed to relatively high levels of EMF for a short period of time, which will increase their overall average exposure by a smaller amount. Examples resulting in an increase in total average exposure by about 1 mG are:
- Crossing a hydro corridor twice a day (about 1 hour a week for 12 months of the year) where average levels of EMF are 170 mG;
- Playing on a sports field (for about 3 hours in a week during 8 months of the year) where average levels of EMF are 85 mG;
- Playing on/ around a play structure (for 10 hours per week during 10 months of the year) where average EMF levels are 20 mG.

In addition, many thousand studies on EMF emissions have been published and reported according to various international Agencies and to PubMed (US National Library of Medicine, NIH) and a quick Google search indicated 257'000 hits relating to "Health Risks of EMF emissions". However, it has to be stated that these studies/reports are quite diverse, strong or less reliable, some relate to high powered lines, some to lower street poles, and some to various other emissions from cell towers, Wi-Fi etc., while some report on acute (short-term: just a few hours exposure only), and others on long-term exposure (living close to power lines), some on animal in a lab setting and some others on humans in reality etc. These facts are making these issues more complex and confuse and data are often not used properly: the above-mentioned Toronto report states *"..... Canada does not have any guidelines or standards for exposures to EMF. Canada, like many countries, uses the international guidelines which are based on the protection from the acute (short-term) effects of EMF ....."*; of course, one-time short-term exposure is many times less harmful (see mentioned data above)!
BC Hydro's answer: They follow international guidelines of 2'000mG allowance !!!!!!

(2) Losses in Property Values: As earlier mentioned, taking a distance of 200m away from high powered lines on both sides, reported as having a possible increased 69% risk for leukemia (British Medical Journal), would translate into approximately 144 homes (based on an initial vague "Google-map search") and about 550-700 people in Anmore alone, and further translating into a total loss of up to 86M$ in Anmore alone, based on the Wall Street journal report with an average 30% loss in property value for homes in proximity of high-powered lines. BC Hydro might respond more specifically with respect to BC; what they did not mention to us is that BC Hydro had some issues in Tsawassen and had to buy an entire strip of homes and resell at lower price. Additional Question: What was the relative loss in % per home, and averaged over all homes bought and sold!
In addition: In a private home meeting, BC Hydro mentioned that the current RoW is too tight, and I noticed in the BC Hydro Report a RoW distance of about 80m compared to the current agreement of 66m! Question: Ignoring current agreements, overloading the current RoW EMF emissions, and posing more property loss?

(3) Safer Solutions: BC Hydro released numbers of costs for safer solutions such as underground lines. Overhead - 9M$, Underground - 35M$ (for 4km). For a difference of 26M$, a safe solution CAN be realized in Anmore leaving everybody happy! A big push came from many residents towards safer underground lines with various ideas for cost coverage; an informal vote with raising hands of attended residents clearly indicated that, what I noticed, everybody wants safe underground lines!
A safe underground line costing 26M$ translates into 0.09% of BC Hydro's 2015 reported assets, or into 0.04% total revenue, or into 4.47% of their net yearly income, and will avoid health risks to about 144 homes, 550-700 people, and will avoid property losses of up to 86M$ in Anmore alone!
BC Hydro published its 2015 Financials Statements with a total Assets of 28B$, a total 2015 revenue of $5,7B and a net income of at least $581M in 2015 !

Dr. Urs Ribary,
Professor and BC LEEF Leadership Chair in Cognitive Neuroscience Childhood Health and Development,
Director, Behavioral and Cognitive Neuroscience Institute (BCNI)