THE BRITISH COLUMBIA RESOLUTION ON THE PROLIFERATION OF ELECTROMAGNETIC RADIATION. (2013)

THE HAZARD:

Whereas the population of the Province of British Columbia is not currently protected by effective and authoritative guidelines or regulations governing exposure to involuntary or incidental, non-thermal, electromagnetic radiation in their homes and public places, the British Columbia, Canada, organization - Citizens for Safe Technology - in collaboration with the undersigned, hereby passes the following Resolution.

THE RESOLUTION:

1. Guidelines and regulations to protect the population of British Columbia from the effects of all forms, frequencies and intensities of electromagnetic radiation must be immediately instituted.

2. The guidelines and regulations mentioned in Article 1 must be based on the findings of independent, non industry-affiliated studies which include, but are not limited to, research into the effects of low-level, non-thermal pulsed radiation; (1)

3. The Provincial Health Officer for British Columbia must publicly acknowledge and immediately invoke the Precautionary Principle (2) with regards to the protection of the population of the Province of British Columbia against the known and/or potential harmful acute and chronic effects of exposure to all forms, frequencies and intensities of electromagnetic radiation; and

4. Direct and immediate action must be taken to halt the proliferation of, and subsequently reduce, the non-consensual exposure of children and pregnant mothers to electromagnetic radiation in all areas of society, most notably through the removal of wireless internet connections in schools, libraries, and other public places.

THE EVIDENCE:
1. The British Columbia Provincial Health Officer has, to date, relied on the guidelines offered by Health Canada in Safety Code 6 to assert that exposure levels within the province are within acceptable levels. However, Health Canada acknowledges (3) that these guidelines are based purely on thermal effects and are intended to apply solely to federally regulated sites. Consequently, they have questionable application in the protection of the general public since they have no authority or application in the protection of the population of the Province in their homes or public places. Furthermore, strong scientific evidence shows that the levels of (thermal) radiation that Health Canada deems safe for the adult population do not provide adequate protection for children. (4)

The Health Canada guidelines state in the preamble: ‘Safety limits in this code apply to all individuals working at, or visiting, federally regulated sites. These guidelines may also be adopted by the provinces, industry or other interested parties.’

WorkSafe BC, which regulates the welfare of employees, has adopted Health Canada's Safety Code 6 but as previously noted, this is neither intended nor adapted to provide protection to the public, and considers only the thermal effects of electromagnetic radiation.

2. The Radiofrequency Toolkit for Environmental Health Practitioners, published in 2013 by The British Columbia Centre for Disease Control and commissioned by the British Columbia Provincial Medical Officer, acknowledges that there is conclusive evidence of biological damage caused by exposure to EMR. (Section 10 - Mobile Phones, Radiofrequency Waves, and Male Infertility). Consequently, through inaction, the British Columbia Provincial Medical Officer is placing in jeopardy the health of the population of the Province and, in particular, the health and mental development of children who numerous studies and reports identify as being at increased risk caused by exposure to Electromagnetic Radiation. (4) (31) (39) (41) (44) (45) (46) (50) (51) (53) (56) (57) (59) (60) (61) (62)

The Radiofrequency Toolkit for Environmental Health Practitioners states:

- ‘A large increase in induced fields for children’s bone marrow was attributed to its higher conductivity compared with that of adults.’
- ‘For the same emitted power, children and fetuses experience higher SAR.’ (5)
- ‘Whole body exposure at frequencies in the range of 80 to 180 MHz and 1–4 GHz to ICNIRP reference exposure levels may expose children and small persons (shorter than 1.3 m) to above acceptable ICNIRP SAR levels.’ (6)
- ‘Children may potentially be at greater risk for adverse health outcomes resulting from exposure to RF.’
- ‘Because the brain is particularly vulnerable to environmental insults during fetal development, childhood and adolescence, there is a need for further studies to ascertain whether there are effects during their developmental stages.’
• 'Unlike the mixed findings found in occupational health studies of radar EMF exposures, the epidemiological studies of men assessed for infertility were consistent in demonstrating decreased sperm motility associated with increased use of mobile phones.

• 'Apart from the known thermal effects of RF, oxidative stress due to increased Reactive Oxygen Species (ROS) or decreased antioxidants is a plausible explanation for non-thermal effects of RF on sperm cells.'

It is therefore incumbent upon the Provincial Health Officer to heed the findings of the Radiofrequency Toolkit and immediately invoke the Precautionary Principle.

3. This Resolution also is based on an accumulation of international research demonstrating beyond doubt genotoxicity from electromagnetic radiation, and is supported by various international resolutions (7) calling for a cessation or reduction of the levels of exposure to such radiation in society. These documents offer unequivocal evidence of biological damage to persons caused by exposure to electromagnetic radiation at levels significantly below those deemed safe by the British Columbia Provincial Health Officer. A partial list of references, representative of many others whose inclusion is limited only by space, can be found in the Appendix to this Resolution.

It is therefore strongly recommended that, based on the findings of The Radiofrequency Toolkit for Environmental Health Practitioners and the numerous references in the Appendix to this document, the province must formulate clear and comprehensive guidelines and regulations that provide adequate protection for the public at large.

APPENDIX:

1. The FCC’s current exposure guidelines, as well as those of the Institute of Electrical and Electronics Engineers and the International Commission on Non-ionizing Radiation Protection, are thermally based, and do not apply to chronic, non-thermal exposure situations. They are believed to protect against injury that may be caused by acute exposures that result in tissue heating or electric shock and burn. The hazard level (for frequencies generally at or greater than 3 MHz) is based on a specific absorption dose-rate, SAR, associated with an effect that results from an increase in body temperature. The FCC’s exposure guideline is considered protective of effects arising from a thermal mechanism but not from all possible mechanisms. Therefore, the generalization by many that the guidelines protect human beings from harm by any or all mechanisms is not justified.

2. Precautionary Principle: The precautionary principle or precautionary approach states if an action or policy has a suspected risk of causing harm to the public or to the environment, in the absence of scientific consensus that the action or policy is harmful, the burden of proof that it is not harmful falls on those taking an act. (Wikipedia)
3. Health Canada scientist, James McNamee, admitted in Quebec Superior Court in Feb. 2013 that for frequencies between 100 kHz and 300 GHz Safety Code 6 is based only on heating. (http://www.magdahavas.com/health-canada-admits-safety-code-6-guideline-for-microwave-radiation-is-based-only-on-thermal-effects/)

4. Dr. Glaser (Ph.D.), the former head of the U.S. Navy Microwave Laboratory and subsequently with the US Food and Drug Administration, when asked whether Health Canada’s assurances that microwave radiation from Wi-Fi is ‘safe’ for children said: ‘They’re either giving you partial information, or they’re giving you misinformation. Because there is scientific consensus that microwaves cause biological effects. There is scientific consensus that children are more vulnerable. And there is no evidence whatsoever that it is safe for children. That is no foundation on which to declare something is safe.’

5. SAR: Specific Absorption Rate.


7. EMF resolutions signed by concerned scientists and medical doctors. The following list of Resolution are signed by scientists, engineers and medical doctors who have been doing EMF research and working internationally on electromagnetic fields health and safety. The combination of their training, experience and the many contributions they have made in conducting and publishing, represents hundreds of years of expertise and places them at the forefront of knowledge about EMF:

Salzburg Austria Resolution 2000 (http://www.salzburg.gv.at/salzburg_resolution_e.htm)
Catania Italy 2002 (www.emrpolicy.org/faq/catania.pdf)
Benevento Italy Resolution 2006 (http://www.icems.eu/benevento_resolution.htm)
Venice Italy Resolution 2008 (http://www.icems.eu/resolution.htm)
Porto Alegre Resolution 2009 (http://www.icems.eu/other_res.htm)

8. Many countries - New Zealand, Italy, China, Bulgaria, Hungary, Russia, Switzerland, Austria and New South Wales, Australia - have lower limits that factor in the non-thermal cumulative effects, which have been shown to occur at levels thousands of times lower than the thermal effects. (http://emfsafetynetwork.org/wp-content/uploads/2011/12/CelltowerRptdoc.pdf)

9. Doctors/Scientists Call for Moratorium or Stricter Guidelines on All WiFi Devices:

Brussels Appeal 2007
Berlin Appeal 2008


12. 1971. The U.S. President’s own Management Advisory Council warned: 'power levels in and around American cities, airports ... and homes may already be biologically significant.' The population at risk 'may well be the entire population.' The consequences of under valuing or misjudging the biological effects of long-term, low-level exposure could become a critical problem for the public health, especially if genetic effects are involved.


14. 1977. Microwaves: Their Deadly Risk and the Cover-up. 'Microwave radiation can blind you, alter your behaviour, cause genetic damage, even kill you. The risks have been hidden from you by the Pentagon, the State Department, and the electronics industry.' The Zapping of America. Paul Brodeur (1977)

15. 1979. NIOSH (National Institute for Occupational Safety and Health) and OSHA (Occupational Safety, Health Agency) believe there is sufficient evidence of harmful non-thermal effects to humans, they recommend that precautionary measures be instituted to
minimize the risk to workers from unwarranted exposure to RF energy (www.cdc.gov/niosh/docs/80-107/)

16. 1986. Eldon Byrd, a scientist for the Naval Surface Weapons Centre, USN, said about M/W radiation: ‘We can alter the behaviour of tissues, cells, organs and whole organisms.... you can cause up to six times higher foetus mortality and birth defects in laboratory animals, and these fields are so weak you can hardly detect them…’

17. 1989. Pulsed EMFs cause cancer in a study of electric utility workers in Quebec (follow-up, 1970–1988) and France (follow-up, 1978–1989): 2,679 cases of cancer were identified. (Hydro Quebec was furious that the results were published and stopped further research.) (http://aje.oxfordjournals.org/content/140/9/805.abstract)


19. 1990. The U.S. Environmental Protection Agency (EPA) says power line EMF is a “probable carcinogen.” A leaked EPA document concluded that power line EMF should be classified a "probable (2A) human carcinogen." William Farland, then-director of the EPA's Office of Health and Environmental Assessment ordered this conclusion deleted from the report. (http://bizgenerationnetwork.blogspot.ca/2012/07/lynas-cancer-and-you.html)


21. 1993. Dr. George Carlo PhD, JD, conducted the Telecom Industry’s own six-year (1993-1999), USD $28.5-million study intended to prove that cell phones are safe. The study proved precisely the opposite. Dr. George Carlo was Head of Project. His report concluded: 1) Federal microwave exposure standards are dangerously high, and 2) Cell damage and tumors can be easily induced in the lab at about one-third of the FCC's exposure guidelines. (http://www.leaflady.org/ElectroSmog.htm) (http://www.lef.org/magazine/mag2007/aug2007_report_cellphone_radiation_01.htm)

22. 1998. NIEHS (National Institute of Environmental Health Sciences) Classified ELF EMFs a 2B “Possible” Carcinogen. (Electrical sub-stations, power lines, house wiring electrical appliances) (http://lifeenergies.com/he-emr)

24. 2001. The WHO’s own IARC (International Agency for Research on Cancer) said ELF EMFs are “Possible Carcinogens.” Twenty-one scientists from 10 countries unanimously find ELF EMFs are a Class 2B “Possible” carcinogen (Electrical sub-stations, power lines, house wiring, electrical appliances) Microwave News July/August 2001 http://www.emfwise.com/powerline.php and www.microwavenews.com

25. 2002. FCC (Federal Communication Commission – none of whom are scientists) set microwave radiation levels more than 10,000 times HIGHER than levels which, according to the EPA, were causing illnesses all over the world! http://lifeenergies.com/he-emr/

26. 2002. Freiburger Appeal. Signed by more than 6,000 German doctors, lists 13 severe chronic illnesses & various disorders involving: behaviour, blood, heart, cancers, tinnitus, migraines, susceptibility to infections and sleeplessness, all of which they ascribed to pulsed M/W from mobile communications devices. http://omega/twoday.net/stories/555926/

27. 2002. US EPA acknowledges FCC guidelines for radiation exposure are outdated, stating in a letter: "The FCC's current exposure guidelines, as well as those of the Institute of Electrical and Electronics Engineers (IEEE) and the International Commission on Non-ionizing Radiation Protection, are thermally based, and do not apply to chronic, non-thermal exposure situations. http://www.aemc.gov.au/Media/docs/Market-Review-Submission-EPR0022---Helen-Weir---121009---Supporting-document-3-85f00cf2-edec-4fb3-9ce4-d3166da1e356-0.PDF


29. 2003. The Ontario Public Health Association (OPHA) urges Health Canada to introduce strict governmental research, quality control and testing of cell phones available in Canada. The recommendation by Toronto Public Health to reduce the SC6 exposure limits by a factor of 100 has merit and deserves serious consideration by Health Canada. http://www.opha.on.ca/What%20We%20Do/Position%20Papers/papers/2003-02_pp.pdf

30. 2003. Swisscom, the leading telecom provider in Switzerland, reveals the true danger of WiFi in a patent application. It devised a way to reduce the microwave radiation from Wi-Fi LANs. In its patent application, Swisscom clearly states the elevated risk of cancer and genetic damage from the constant low level microwave/RF exposure from WiFi. http://www.safeschool.ca/Swisscom__WiFi_Harms.html
31. 2003. UK Education Secretary David Blunkett bans cell phones from all schools in England and Wales, saying mobile phones should only be used by pupils under 16 in emergencies.

32. 2004. Radio Frequencies are dangerous. There are well over 10,000 scientific reports from many countries around the world, many of them dating back to the 1950’s, verifying that high frequency energy shoots straight into the brain, is absorbed by the brain cells, heats them up and damages the DNA. 


33. 2005. Corruption in the WHO. On July 5, 2005, it was published that Dr. Michael Repacholi – Coordinator of the WHO’s 10-year, $250-million International Project to study the harmful effects of EMR and EMFs- receives $150,000 a year (via Royal Adelaide Hospital, S.A.) from the cellular phone industry with additional money for meetings and travels. (microwavenews.com 5.7.05)

34. 2005. The National Institute for Occupational Safety and Health (NIOSH) recognized Electromagnetic Sensitivity (EHS) – fifty-five (55) years after the Soviet Union!

35. 2007. Toronto's Chief Medical Officer of Health recommends Health Canada's Safety levels for microwave exposure be lowered by a factor of 100X (that’s the 3rd recommendation over four years!) http://safeschool.ca/Health_Warnings.html

36. 2007. BioInitiative Report. Twenty doctors, 10 countries, 2,000 studies. Urged all countries to reduce their Exposure Limits. To comply Safety Code 6 would need to be reduced 10,000 times.

37. 2007. The European Environment Agency called on its 27 Member States (500-million people) to: “protect the public more effectively by taking ‘Appropriate, precautionary and proportionate actions ... to avoid ... serious threats’” (www.europarl.europa.eu/sides/getDoc.do?language=EN&reference=A6-0089/2009#title)


40. 2008. The European Union Parliament (27 countries, 500-million people) accepts premise of Bio-Initiative 2007 report concerning EMFs ..... and says today’s EMF Exposure Limits are obsolete. ([http://safeschool.ca/Health_Warnings.html](http://safeschool.ca/Health_Warnings.html))

41. 2008. European Union countries: In the past 2 years alone Switzerland, France, Germany, Belgium and England have begun removing Wi-Fi from schools and public libraries .... other countries are pressing to do same. ([http://www.msnbc.msn.com/id/34509513/ns/health-cancer/t/electrosmog-harming-our-health/#.UPnBRR2rnTp](http://www.msnbc.msn.com/id/34509513/ns/health-cancer/t/electrosmog-harming-our-health/#.UPnBRR2rnTp))


43. 2008. The ICEMS (International Commission for Electromagnetic Safety) says: “World’s Exposure Limits are ‘inadequate’ as only thermal effects are considered [referring to Health Canada, WHO, ICNIRP, IEEE and FCC.], and a global application of the PRECAUTIONARY PRINCIPLE is required and additional protection is needed for pregnancy, newborns, children, and elderly people. (Signed by 56 world-class scientists from 16 countries) ([http://www.icems.eu/resolution.html](http://www.icems.eu/resolution.html))

44. 2008. In the past 2 years alone Switzerland, France, Germany, Belgium and England have begun removing Wi-Fi from schools and public libraries .... other countries are pressing to do same.

45. 2008. ICEMS. World’s Exposure Limits are ‘inadequate’ as only thermal effects are considered. A global application of the precautionary Principle is required and additional protection is needed for pregnancy, newborns, children, and elderly people.

46. April, 2009. The EU Parliament adopted, by 559 votes to 22, with 8 abstentions, a resolution on health concerns associated with electromagnetic fields (EMFs) which includes criteria for setting up [Cell Towers] and high-voltage power lines. They state: 'In this context, it is important to ensure at least that schools, crèches [nursery schools], retirement homes, and health care institutions are kept clear, within a specific distance determined by scientific criteria, of facilities of this type.' ([http://emfsafetynetwork.org/wp-content/uploads/2011/12/CelltowerRptdoc.pdf](http://emfsafetynetwork.org/wp-content/uploads/2011/12/CelltowerRptdoc.pdf))

47. 2010. Published by Canada’s National Research Council (NRC) Press: “Many Canadians are being exposed to dangerous levels of radiation and concluded that a new biologically based
guideline is needed, instead of the dangerous, outdated thermal guidelines. Authors: B. Blake Levitt and Henry Lai
(http://safeschool.ca/Health_Warnings.html)

48. 2010. U.S. President Barack Obama’s own Cancer Advisory Panel pointed to cell phones and other wireless technologies as potential causes of cancer, and recommended: “When credible evidence exists that there may be a hazard, use [a] precautionary approach.” (http://willthomasonline.net/how%20to%20defend%20against%20smart%20meters.htm)

49. 2010. The Canadian National Research Council states: 'Many Canadians are being exposed to dangerous levels of radiation' and concluded that a new biologically based guideline is needed, instead of the dangerous, outdated thermal guidelines.'

50. 2011. The Council of Europe and the European Parliament recognize for the first time biological effects of EMF on living plants, animals and human beings. The need now is to protect citizens from EMR, particularly pregnant women, newborn babies & children.

51. 2011. The Council of Europe committee calls for ban of cell phones and Wi-Fi in all schools: ‘immediate action is required to protect children … it’s crucial to avoid repeating mistakes concerning the dangers of asbestos, tobacco and lead.’

52. 2011. Council of Europe (47 countries, 800-million people) Notes “Conflict of Interest” 33% of studies funded by industry find cell phones harmful to humans. Over 80% of studies NOT funded by industry find cell phones harmful to humans. This is a “manifestly unacceptable situation pointing to CONFLICTS OF INTEREST which undermine the integrity, the genuine independence and the objectivity of scientific research.” (http://www.assembly.coe.int/Documents/WorkingDocs/Doc11/EDOC12608.pdf)

53. 2011. The Council of Europe and the European Parliament (47 countries, 800-million people) recognize for the first time biological effects of EMF on living plants, animals and human beings. The need now is to protect citizens from EMR, particularly "pregnant women, newborn babies & children."


54. May 27, 2011. Council of Europe Urges Break from ICNIRP and WHO. News release, urged all 47 Governments to reconsider ICNIRP’s Exposure Limits (which are followed by the WHO & Health Canada) “which have serious limitations and apply “as low as reasonably achievable” principles ... Governments should ‘take all reasonable measures’ to reduce exposure to EMFs. (http://assembly.coe.int/ASP/_NewsManager/EMB_NewsManagerView.asp?ID=6685)

56. 2011. Council of Europe (47 countries – 800 million people) Committee called for ban of cell phones and Wi-Fi in all schools ... immediate action is required to protect children ... it’s crucial to avoid repeating mistakes concerning the dangers of asbestos, tobacco and lead. ([http://articles.mercola.com/sites/articles/archive/2011/06/02/european-leaders-call-for-ban-of-cell-phones-and-wifi-in-schools.aspx](http://articles.mercola.com/sites/articles/archive/2011/06/02/european-leaders-call-for-ban-of-cell-phones-and-wifi-in-schools.aspx))


58. 2012. “Concrete evidence” EMR causes cancer” Dr. Annie Sasco, PhD. who worked 22 years in W.H.O.’s International Agency for Research in Cancer (IARC), including nine as Group Leader, then was Unit Chief of Epidemiology for Cancer Prevention said: “Despite the voices of industry-funded scientists saying otherwise there is concrete evidence that mobiles/cellphones and wi-fi cause cancer in humans.” ([http://www.youtube.com/watch?v=2JyAIo_UdSk](http://www.youtube.com/watch?v=2JyAIo_UdSk))

59. 2012. Ontario’s English Catholic Teacher’s Assn. (45,000 teachers) wants to ban new Wi-Fi installations in the province’s 1,400-plus Catholic schools and wants computers in all new schools to be hard-wired. ([http://www.cbc.ca/news/canada/toronto/story/2012/02/13/toronto-oecta-wifi.html](http://www.cbc.ca/news/canada/toronto/story/2012/02/13/toronto-oecta-wifi.html))

60. 2012. Russia Warns: Pregnant women: avoid using mobile phones entirely ... also children under 18. Austria, China, Germany, India, U.K., Israel, Finland, Belgium, Ireland, Spain, Sweden & Toronto have issued health warnings for children: “use cell phones in emergencies – but only on speaker phone” Prof. Yury Grigoriev, Chairman of Russian National Committee on Non-ionizing Radiation Protection (NIRP)


63. 2012. Italy’s Supreme Court sides with a businessman who developed a tumor after using a cell phone for 12 years. This is the first time that a High Court—in any country—has ruled in favor of a link between mobile phone radiation and tumor development! ([www.theatlantic.com/health/archive/2012/10/italian-supr](http://www.theatlantic.com/health/archive/2012/10/italian-supr...))

64. 2002 / 2012. In the Freiburger Appeal, initially 50 doctors in Germany reported reduced therapeutic efficiency of prescribed drugs correlated with the use of pulsed microwaves, such as those from Mobile Telephone Masts. Some 40,000 signatories have now supported the appeal, including 1,200 doctors. Alongside the Freiburger Appeal there are now similar appeals from Lichtenfelser, Hofer, Bamberger and Helsinki. ([http://bioenergy.timleitch.net.nz/mast_dangers/cp-masts_awful-truth.htm](http://bioenergy.timleitch.net.nz/mast_dangers/cp-masts_awful-truth.htm))

65. 2012. Nobel Co-laureate Dr. Devra Davis has two videos that provide critical information about how all wireless devices (cell phones, cordless phones, wifi, cell towers etc.) harm our health. ([http://www.youtube.com/watch?v=Xtd-y2C9IH4&feature=endscreen&NR=1](http://www.youtube.com/watch?v=Xtd-y2C9IH4&feature=endscreen&NR=1) [http://www.youtube.com/watch?v=a6wLFeIrCtU&feature=related](http://www.youtube.com/watch?v=a6wLFeIrCtU&feature=related))

66. BioInitiative 2012 Report. In part: Says RF EMF should be classified as a “human carcinogen”; Existing FCC, IEEE and ICNIRP [and Health Canada] guidelines ... do not protect us. Recommends Exposure Limit for chronic exposure > 3-6 million times lower/safer than Safety Code 6! (i.e. 0.3-0.6 nW/cm2 vs 1000 uW/cm2). Says five new cell tower studies report bio-effects from ELF at levels 1,000 to 10,000 times lower than current exposure Limits provide for. Sufficient epidemiological evidence exists: EMF (power frequency magnetic fields) can be classified a Group 1 “Known Carcinogen”. ([www.bioinitiative.org](http://www.bioinitiative.org))

67. 2013. A body of more than 6,000 studies has been accumulated since the 1930s producing an overwhelming conclusion that exposure to microwave and electromagnetic fields is significantly harmful to all life and health itself. ([www.klinghardtacademy.com](http://www.klinghardtacademy.com))