

Formal legal notice of intent

To:

Date:

This document constitutes a formal notice upon [name of landowner], his business and any parties who have today, or in the future, any ownership or business interest in any property title that sites the proposed NBN tower.

The notice has been served on [name of landowner] by the following residents of [name of community] and it is probable that future notices will be served on the property owners in the short and medium term as more evidence of harm occurring in the [name of community] population becomes known or is discovered. Additional notices from other individuals and/or groups is also likely to occur as the risk implications become known.

Names of people serving the notice:

The nature of this notice is to inform all parties associated with the strategy, planning, construction, operations and, in particular, with the hosting of the NBN tower that evidence exists of harm to human tissue. Also that sufficient evidence of associated clinical adverse conditions exists to require any reasonable or responsible person or organisation to use a precautionary principle when factoring in each identified risk.

In particular, the risks that they face of any future litigation from members of our [name of] community for health related damages relating to the total microwave radiation generated between the various towers themselves, plus the WiFi radiation from each tower to each home and then the additional radiation from each of the 400 homes back to the tower which will for some dwellings dramatically increase the dosage.

Having undertaking a large volume of research and speaking with experts our group has formed the view that this notice provides sufficient evidence of correlative harm associated with the range of frequencies to be utilized, in particular of harm from non-ionising radiation. You will see in the evidence attached that this ranges from the lowering of sperm count, to a wide range of conditions, including cancer.

To assist the landowner with understanding the implications of introducing a background level of radiation operating 24 hours by 7 days a week into our environment we have supplied evidence that illustrates how this impacts schools. We also provide evidence of how institutions and many governments around the world, having conducted a genuine risk assessment, are introducing measures to ban wireless systems in favour of cable.

We also draw attention that the Liberal Party and local Members promised [name of community] exactly this safer option in the form of fibre optics to the local exchange or node and then to utilise the existing copper wire phone lines to distribute. In [name of community] we already have that configuration which supplies broadband at a higher speed than the NBN can guarantee via the tower. This is mentioned because any party who in the future faces litigation will have to justify why the safer and probably less expensive option was overlooked for a high impact and high risk option.

We have also provided evidence that the standards set by industry and used by governments for their own requirements are inadequate from the perspective of ensuring that children and our vulnerable members of the community are protected from radiation harm. For example, the hypothesis employed for exposure guidelines that non-ionizing radiation within the electromagnetic spectrum that covers power frequencies, microwaves and radio frequencies is harmless if it lacks thermal or ionizing effects is now outdated as studies are producing evidence of biological responses which cause harm, including carcinogenic potential, as stated by the WHO. It is generally agreed that further research is needed to determine the long-term effects of continual exposure at these radiation levels and their possible relevance to health and to identify gaps in our current knowledge. This becomes more crucial as evidence mounts to the carcinogenic potential of radiation exposure.

The attached 35 page report provides sufficient evidence to demonstrate that again a precautionary approach is required to match the evidence of risk and to ensure that no harm is done to our community.

We also draw attention to reports that the NBN contract appears by nature to be onerous and may attempt to switch some of the responsibilities and therefore the liabilities associated with the potential harm outlined in the evidence to the landowner.

It is our view that by providing this information within the context of a formal legal notice it will assist the landowner to acquire better specialist legal and insurance advice.

We also understand that should any litigation occur in the future then all parties would be bound to make available this and any other notes in response to any discovery. We are uncertain if this would also relate to any land and title discovery should the property be put on the market so we advise the landowner to seek legal advice as to their responsibilities.

Please find as part of the evidence the following documents:

1. World Health Organisation release 208. IARC Classifies radio frequency electromagnetic fields as possibly carcinogenic to humans
2. Bio-Initiative 2012 Section 4: Evidence of inadequacy of the standards
3. Safe Schools in 2012: Medical and scientific experts call for safe technologies in schools
4. Electromagnetic fields act via activation of voltage-gated calcium channels to produce beneficial or adverse effects
5. Reported biological effects from radio-frequency radiation at low-intensity exposure

We also wish to bring the landowners and their advisors attention to the following information below as part of the evidence

6. A comparison of WiFi emissions to scientific research

The Parliamentary Assembly of the Council of Europe (PACE), meeting in Kyiv at Standing Committee level, today called on European governments to "take all reasonable measures" to reduce exposure to electromagnetic fields, especially to radio frequencies from mobile phones, "and particularly the exposure to children and young people who seem to be most at risk from head tumours".

According to parliamentarians, governments should "for children in general, and particularly in schools and classrooms, give preference to wired Internet connections, and strictly regulate the use of mobile phones by schoolchildren on school premises", and put in place information and awareness-raising campaigns on the risks of potentially harmful long-term biological effects on the environment and on human health, especially "targeting children, teenagers and young people of reproductive age".

Following the proposals of the rapporteur (Jean Huss, Luxembourg, SOC), the Assembly called on governments to provide information on potential health risks of DECT-type wireless telephones, baby monitors and other domestic appliances which emit continuous pulse waves, if all electrical equipment is left permanently on standby. They should, instead, recommend "the use of wired, fixed telephones at home or, failing that, models which do not permanently emit pulse waves".

Governments should "reconsider the scientific basis for the present electromagnetic fields exposure standards set by the International Commission on Non-Ionising Radiation Protection, "which have serious limitations" and apply as low as reasonably achievable (ALARA) principles.

The adopted resolution underlines the fact that "the precautionary principle should be applicable when scientific evaluation does not allow the risk to be determined with sufficient certainty" and stresses that "the issue of independence and credibility of scientific expertise is crucial" to achieve a transparent and balanced assessment of potential negative impacts on the environment and human health.

Papers finding adverse biological effects or damage to health from Wi-Fi signals, Wi-Fi-enabled devices or Wi-Fi frequencies (2.4 or 5 GHz).

Papers listed are only those where exposures were below 16V/m. Someone using a Wi-Fi-enabled tablet computer can be exposed to electromagnetic fields up to 16V/m. Papers are in alphabetical order.

Some of the references to peer reviewed studies relating to exposure to WiFi

- Atasoy H.I. et al., 2013. Immunohistopathologic demonstration of deleterious effects on growing rat testes of radiofrequency waves emitted from conventional Wi-Fi devices. *Journal of Pediatric Urology* 9(2): 223-229. <http://www.ncbi.nlm.nih.gov/pubmed/22465825>
- Avendaño C. et al., 2012. Use of laptop computers connected to internet through Wi-Fi decreases human sperm motility and increases sperm DNA fragmentation. *Fertility and Sterility* 97(1): 39-45. <http://www.ncbi.nlm.nih.gov/pubmed/22112647>
- Aynali G. et al., 2013. Modulation of wireless (2.45 GHz)-induced oxidative toxicity in laryngotracheal mucosa of rat by melatonin. *Eur Arch Otorhinolaryngol* 270(5): 1695-1700. <http://www.ncbi.nlm.nih.gov/pubmed/23479077>
- Dasdag S. et al., 2014. Effect of long-term exposure of 2.4 GHz radiofrequency radiation emitted from Wi-Fi equipment on testes functions. *Electromagn Biol Med*. Epub ahead of print. <http://www.ncbi.nlm.nih.gov/pubmed/24460421>
- Gumral N. et al., 2009. Effects of selenium and L-carnitine on oxidative stress in blood of rat induced by 2.45-GHz radiation from wireless devices. *Biol Trace Elem Res*. 132(1-3): 153-163. <http://www.ncbi.nlm.nih.gov/pubmed/19396408>
- Gürler H.S. et al, 2014. Increased DNA oxidation (8-OHdG) and protein oxidation (AOPP) by Low level electromagnetic field (2.45 GHz) in rat brain and protective effect of garlic. *Int. J. Radiat. Biol*. Epub ahead of print. <http://www.ncbi.nlm.nih.gov/pubmed/24844368>
- Havas M. et al., 2010. Provocation study using heart rate variability shows microwave radiation from 2.4GHz cordless phone affects autonomic nervous system. *European Journal of Oncology Library Vol. 5*: 273-300. <http://www.icems.eu/papers.htm?f=/c/a/2009/12/15/MNHJ1B49KH.DTL> part 2.
- Havas M. and Marrongelle J. 2013. Replication of heart rate variability provocation study with 2.45GHz cordless phone confirms original findings. *Electromagn Biol Med* 32(2): 253-266. <https://www.ncbi.nlm.nih.gov/pubmed/23675629>
- Maganioti A. E. et al., 2010. Wi-Fi electromagnetic fields exert gender related alterations on EEG. 6th International Workshop on Biological Effects of Electromagnetic fields. <http://www.istanbul.edu.tr/6internatwshopbioeffemf/cd/pdf/poster/WI-FI%20ELECTROMAGNETIC%20FIELDS%20EXERT%20GENDER.pdf>
- Margaritis L.H. et al., 2013. Drosophila oogenesis as a bio-marker responding to EMF sources. *Electromagn Biol Med.*, Epub ahead of print. <http://www.ncbi.nlm.nih.gov/pubmed/23915130>
- Nazıroğlu M. and Gumral 2009. Modulator effects of L-carnitine and selenium on wireless devices (2.45 GHz)-induced oxidative stress and electroencephalography records in brain of rat. *Int J Radiat Biol*. 85(8): 680-689. <http://www.ncbi.nlm.nih.gov/pubmed/19637079>
- Nazıroğlu M. et al., 2012. 2.45-Gz wireless devices induce oxidative stress and proliferation through cytosolic Ca²⁺ influx in human leukemia cancer cells. *International Journal of Radiation Biology* 88(6): 449-456. <http://www.ncbi.nlm.nih.gov/pubmed/22489926>
- Nazıroğlu M. et al., 2012b. Melatonin modulates wireless (2.45 GHz)-induced oxidative injury through TRPM2 and voltage gated Ca(2+) channels in brain and dorsal root ganglion in rat. *Physiol Behav*. 105(3): 683-92. <http://www.ncbi.nlm.nih.gov/pubmed/22019785>
- Ozorak A. et al., 2013. Wi-Fi (2.45 GHz)- and mobile phone (900 and 1800 MHz)- induced risks on oxidative stress and elements in kidney and testis of rats during pregnancy and the development of offspring. *Biol. Trace Elem. Res*. 156(103): 221-229. <http://www.ncbi.nlm.nih.gov/pubmed/24101576>
- Oksay T. et al., 2012. Protective effects of melatonin against oxidative injury in rat testis induced by wireless (2.45 GHz) devices. *Andrologia* doi: 10.1111/and.12044, Epub ahead of print. <http://www.ncbi.nlm.nih.gov/pubmed/23145464>

- Papageorgiou C. C. et al., 2011. Effects of Wi-Fi signals on the p300 component of event-related potentials during an auditory hayling task. *Journal of Integrative Neuroscience* 10(2): 189-202. <http://www.ncbi.nlm.nih.gov/pubmed/21714138>
 - (Wi-Fi alters brain activity in young adults: <http://wifiinschools.org.uk/resources/wifi+brain+July+2011.pdf>)
 - Salah M.B. et al., 2013. Effects of olive leaf extract on metabolic disorders and oxidative stress induced by 2.45 GHz WIFI signals. *Environ Toxicol Pharmacol* 36(3): 826-834. <https://www.ncbi.nlm.nih.gov/pubmed/23994945>
 - Sangun O. et al., 2014. The effects of long-term exposure to a 2450MHz electromagnetic field on growth and pubertal development in female Wistar rats. *Electromagn Biol Med*. Epub ahead of print. <https://www.ncbi.nlm.nih.gov/pubmed/24460416>
 - Shahin S. et al., 2013. 2.45 GHz Microwave Irradiation-Induced Oxidative Stress Affects Implantation or Pregnancy in Mice, *Mus musculus*. *Appl Biochem Biotechnol* 169: 1727–1751. <http://www.ncbi.nlm.nih.gov/pubmed/23334843>
 - Shahin S. et al., 2014. Microwave irradiation adversely affects reproductive function in male mouse, *Mus musculus*, by inducing oxidative and nitrosative stress. *Free Radic Res*. 48(5): 511-525. <https://www.ncbi.nlm.nih.gov/pubmed/24490664>
 - Tök L. et al., 2014. Effects of melatonin on Wi-Fi-induced oxidative stress in lens of rats. *Indian Journal of Ophthalmology* 62(1): 12-15. <http://www.ncbi.nlm.nih.gov/pubmed/24492496>
 - Türker Y. et al., 2011. Selenium and L-carnitine reduce oxidative stress in the heart of rat induced by 2.45-GHz radiation from wireless devices. *Biol Trace Elem Res*. 143(3): 1640-1650. <http://www.ncbi.nlm.nih.gov/pubmed/21360060>
- **A few more studies of similar microwave frequencies at low exposures (6V/m or below):**
- Balmori A. 2010. Mobile phone mast effects on common frog (*Rana temporaria*) tadpoles: the city turned into a laboratory. *Electromagn. Biol. Med*. 29(1-2):31-35. <http://www.ncbi.nlm.nih.gov/pubmed/20560769>
 - Erdinc O. O. et al., 2003. Electromagnetic waves of 900MHz in acute pentylenetetrazole model in ontogenesis in mice. *Neurol. Sci*. 24:111-116. <http://www.ncbi.nlm.nih.gov/pubmed/14600821>
 - Fesenko E. E. et al., 1999. Stimulation of murine natural killer cells by weak electromagnetic waves in the centimeter range. *Biofizika* 44:737–741. <http://www.ncbi.nlm.nih.gov/pubmed/10544828>
 - Fesenko E. E. et al., 1999. Microwaves and cellular immunity. I. Effect of whole body microwave irradiation on tumor necrosis factor production in mouse cells, *Bioelectrochem. Bioenerg*. 49:29–35. <http://www.ncbi.nlm.nih.gov/pubmed/10619445>
 - Kesari K. K. and Behari J., 2009. Microwave exposure affecting reproductive system in male rats. *Appl. Biochem. Biotechnol*. 162(2):416-428. <http://www.ncbi.nlm.nih.gov/pubmed/19768389>
 - Kesari K. K. and Behari J., 2009. Fifty-gigahertz microwave exposure effect of radiations on rat brain. *Appl. Biochem. Biotechnol*. 158:126-139. <http://www.ncbi.nlm.nih.gov/pubmed/19089649>
 - Khurana V. G. et al., 2010. Epidemiological Evidence for a Health Risk from Mobile Phone Base Stations. *Int. J. Occup. Environ. Health* 16:263–267. <http://www.ncbi.nlm.nih.gov/pubmed/20662418>
 - Maier R. et al., 2004. Effects of pulsed electromagnetic fields on cognitive processes – a pilot study on pulsed field interference with cognitive regeneration. *Acta Neurologica Scandinavica* 110: 46-52. <http://www.ncbi.nlm.nih.gov/pubmed/15180806>
 - Nittby H. et al., 2008. Cognitive impairment in rats after long-term exposure to GSM-900 mobile phone radiation. *Bioelectromagnetics* 29: 219-232. <http://www.ncbi.nlm.nih.gov/pubmed/18044737>

- Novoselova E. G. et al., 1998. Stimulation of production of tumor necrosis factor by murine macrophages when exposed in vivo and in vitro to weak electromagnetic waves in the centimeter range *Bofizika* 43:1132–1333.
- Novoselova E. G. et al., 1999. Microwaves and cellular immunity. II. Immunostimulating effects of microwaves and naturally occurring antioxidant nutrients. *Bioelectrochem. Bioenerg.* 49:37–41. <http://www.ncbi.nlm.nih.gov/pubmed/10619446>
- Otitolaju A. A. et al., 2010. Preliminary study on the induction of sperm head abnormalities in mice, *Mus musculus*, exposed to radiofrequency radiations from Global System for Mobile Communication Base Stations. *Bull. Environ. Contam. Toxicol.* 84(1):51-4. <http://www.ncbi.nlm.nih.gov/pubmed/19816647>
- Panagopoulos D. J. et al., 2010. Bioeffects of mobile telephony radiation in relation to its intensity or distance from the antenna. *Int. J. Radiat. Biol.* Vol 86(5):345-357. <http://www.ncbi.nlm.nih.gov/pubmed/20397839>
- Persson B. R. R. et al., 1997. Blood-brain barrier permeability in rats exposed to electromagnetic fields used in wireless communication. *Wireless Networks* 3: 455-461.
- Pyrpasopoulou A. et al., 2004. Bone morphogenic protein expression in newborn kidneys after prenatal exposure to radiofrequency radiation. *Bioelectromagnetics* 25:216-27. <http://www.ncbi.nlm.nih.gov/pubmed/15042631>
- Salford L. G. et al., 2010. Effects of microwave radiation upon the mammalian blood-brain barrier. *European Journal of Oncology Library* Vol. 5:333-355. <http://www.icems.eu/papers.htm?f=/c/a/2009/12/15/MNHJ1B49KH.DTL> part 2.
- Salford L. G., et al., 2003. Nerve cell damage in mammalian brain after exposure to microwaves from GSM mobile phones. *Environ. Health Perspect.* 111:881-883. <http://www.ncbi.nlm.nih.gov/pubmed/12782486>

Signed on behalf of the group [name of community]