



RADIATION AWARENESS NAMIBIA

Information for Improved Awareness & Public Health Protection. Working for the precautionary siting of masts & antennas away from homes & schools and the safer use of cell phones & wireless technology.

17 November 2014

To Enviro Dynamics
info@envirod.com

Dear Mr Van Zyl and the Enviro Dynamics team

OBJECTION against 5 new BTS sites in Ludwigsdorf. **Antennas near homes: Increased cancer risk**

With regard to the above and your request for comments in this further round of the EIA process for Ludwigsdorf antennas, kindly receive the following submission.

In every family, there is concern about the alarming increase in especially cancers. "Eight of the 10 studies evaluated through *PubMed* reported increased prevalence of adverse neurobehavioral symptoms or cancer in populations living at distances less than 500 m from Base Stations."

(Epidemiological Evidence for a Health Risk from Mobile Phone Base Stations: Vini G. Khurana, Lennart Hardell, Joris Everaert, Alicja Bortkiewicz, Michael Carlberg, Mikko Ahonen: *International Journal of Occupational and Environmental Health*, Vol 16, No 3 (2010))

Any environmental factor that is suspected of increasing the risk of cancer and the many other nervous system effects now linked to long-term RF exposure, warrants serious attention, especially where residents are faced with installations near their homes, which, once installed, are unlikely to be removed. Your own families, I am sure, would be equally concerned, and would not be expected to wait for 'final' proof. And hopefully requesting responses from residents at this difficult time of the year, as in the past, has not again been strategically timed in order to minimize responses.

EIAs should support authorities in efforts to develop sustainable long-term precautionary strategies to protect all communities, and should draw attention to the alternative of safer internet access by landline, especially in homes, offices and schools.

Honest EIAs with balanced information are important in this process. At the same time, the complexity of this matter is not underestimated—neither can the increasing evidence of harm be ignored.

This submission therefore serves to

- 1) specifically object against 5 new antennas in the residential area of Ludwigsdorf, and an increase in antennas in any other residential area;
- 2) especially note that the proposed antennas will add to radiation emissions which residents are already subjected to from Bowker Hill, and in other residential areas, from the many BTS sites that already exist near homes, at times exposing one home to radiation from more than one installation;
- 3) again draw attention to the essential issues regarding RF emissions and your critical role in the EIA process, in accordance with Enviro Dynamic's own lofty mission statement:

"Rooted in a culture of integrity, Enviro Dynamics act as custodians of creation. We offer an honest and straight-forward service."

The position of Namibia's Atomic Energy Board on ICNIRP Safety Guidelines: As you are fully aware, exposure to radiation from BTS antennas resorts under the **Atomic Energy and Radiation Protection Act No 5 of 2005**. Namibia's Atomic Energy Board has confirmed that ICNIRP Guidelines [while useful for protection against acute short-term effects, eg. 'tissue heating'] "**do not guarantee adequate protection against the long-term effects of exposure, such as increased risk of cancer.**"

Yet your public EIA presentation on the Ludwigsdorf antennas on 19 September 2012 relied on a consultant who, as a developer of antenna systems, has close links to the industry (Dr Frans Meyer of EMSS), and who focussed only on ICNIRP's limited, short-term functions. These strategies are indefensible and easily confuse a generally uninformed public. (ICNIRP itself in 2009 re-confirmed the basic restrictions of their 1998 guidelines.)ⁱ

Update on studies 2012-2014: Increasing evidence for health risks from wireless technology: Studies show nervous system effects in 68% of studies on radiofrequency radiation (144 of 211 studies) in 2014, an increase from 63% in 2012 (93 of 150 studies) in 2012. Studies of extremely-low frequency radiation are reported to cause nervous system effects in 90% of the 105 studies available in 2014. Genetic effects (damage to DNA) from radiofrequency radiation is reported in 65% (74 of 114 studies); and 83% (49 of 59 studies) of extremely-low frequency studies. New studies intensify medical concerns about malignant brain tumors from cell phone use. Wired connections in schools [and homes] should be encouraged until there is proof of safety, and children's use of wireless devices should be minimized.

(BioInitiative Report 2014: 29 authors from ten countries, ten MDs and 21 PhDs, plus MScs)

For homes, schools and offices, safer internet access by landline, is available: Safer high speed internet access is available by landline, which includes ADSL routers, e.g. Fritz Boxes, with local area network connectivity (CAT/Ethernet cables) as well as Wi-Fi modems which can be **switched off** when not needed. Cell phone reception is available to more than 90% of our population, albeit with a few weak spots in towns or on long distances that do not justify extra radiation emissions in residential areas while safety is unproven.



SMART METERS: Smart Meters will add to the **involuntary, continuous, cumulative exposure of families already exposed to antenna emissions:** While the brief of Enviro Dynamics does not cover Smart Meters, no objection against extra antennas in residential areas is complete without mention of the

alarming possibility of Smart Meters in our homes if unconfirmed reports that City of Windhoek is considering the installation of these meters, are true. Families now faced with the possibility of extra antennas near their homes, may well in future be exposed to much higher levels of additional radiation. In the USA, several legal challenges to these meters in homes are currently underway.

Early Warnings on Smart Meters: These meters measure consumer energy usage and transmit data via wireless signals,

and dramatically increase radiation in homes. An unsuspecting public will once again be reassured that this new technology is 'safe'.

- Computer modelling and real measurement of existing meters show that Smart Meters emit frequencies almost continuously, day and night, seven days a week. Exposure is cumulative and is also added to exposure from the use of wireless devices.
- Evidence is accumulating [see above] on the results of exposure to RF at non-thermal levels, including increased permeability of the blood-brain barrier in the head (Eberhardt, 2008),* harmful effects on sperm,*double strand breaks in DNA which could lead to cancer genesis (Phillips, 2011), *stress gene activation indicating an exposure to a toxin (Blank, 2011), *and alterations in brain glucose metabolism (Volkow, 2011).

Source: Health Risks Associated with Smart Meters, Poki Stewart Namkung, MD, MPH, Health Officer, County of Santa Cruz (13 January 2012)

For more information on Smart Meters, see also:

- a) Comments on the Draft Report by the California Council on Science and Technology "Health Impacts of Radio Frequency from Smart Meters." Daniel Hirsch, Senior Nuclear Policy Lecturer, University of California (31 January 2011).
- b) The important SAGE REPORT ON SMART METER RF (Jan. 2011). www.sagereports.com/

Misrepresented information that serves the industry's interests: For a perspective on the extent to which information on the issue of RF exposure and studies on potential health effects are misrepresented, read the Swedish Radiation Protection Association's statement to the European Commission, dated 16 April 2014:

"Comments on the SCENIHR preliminary opinion on Potential health effects of exposure to electromagnetic fields (EMF)" http://www.stralskyddsstiftelsen.se/wp-content/uploads/2014/08/scenih_r_swerad_16042014_final.pdf

It is not true that we 'are in any case exposed to much more natural radiation': "Since our brains detect and use very low frequency signals from the Schumann Resonances, which have a mean intensity of about 0.0000001 microwatts/sq. cm. (0.1 picowatts/sq. cm.), it is not surprising that at exposures which are millions of times higher [than natural background radiation], there is increased brain cell damage and an increased risk of brain tumor in a dose-response manner. This kind of result is indicative of cause and effect." Dr. Neil Cherry. University of Lincoln (5 February 2000)

Inadequate information that relies on outdated ICNIRP: Putting Namibian communities at extra risk:

I submit therefore that the information supplied in the Ludwigsdorf EIA process, especially in the public presentation, did not adequately address the issue of long-term RF exposure of families in homes, and puts Namibian communities at extra risk—

Given the increasing number of studies indicating risk of health effects from long-term Radio Frequency exposure, for example:

- the 2011 classification of RF as a possible carcinogen by the WHO's own International Agency for Research on Cancer (IARC) (Extract below)ⁱⁱ,
- the 1800 new scientific studies since 2007 showing health effects,ⁱⁱⁱ
- the WHO's statement in their Fact Sheet 193, that they will publish a full risk assessment in 2016. For families now facing the prospect of antennas near their homes, a clear indication that there is by no means any certainty of the safety of long-term exposure. (At this point Fact Sheet 193 states that there are no "established" health effects, which according to Dr Baan of the IARC, "can easily be misinterpreted as a stamp of safety for mobile communication technology. Dr Baan has raised this issue of the wording, with WHO...)^{iv}

Given the above, the need for precautionary sitings of BTS antennas away from residential areas and schools, and Enviro Dynamics' failure to support a precautionary policy;

Given the failure of your EIA, and the 'independent' consultant appointed under your watch, to properly inform the public on the limitation of ICNIRP Guidelines to only short-term protection;

Given the fact that your EIA did not conclusively show that the majority of residents were in favour of these additional antennas; many of those who were informed of the EIA in the previous round, and of health risks, voiced their objection;

Given that wireless technology is by now an essential part of our modern existence (and your obligation in terms of EIA requirements) your failure to draw attention to the reasonable alternative and safer option of internet access by landline for homes; which should also be supported for schools and offices.

International Agency for Research on Cancer



PRESS RELEASE
N° 208

31 May 2011

IARC CLASSIFIES RADIOFREQUENCY ELECTROMAGNETIC FIELDS AS POSSIBLY CARCINOGENIC TO HUMANS

Lyon, France, May 31, 2011 -- The WHO/International Agency for Research on Cancer (IARC) has classified radiofrequency electromagnetic fields as possibly carcinogenic to humans (Group 2B), based on an increased risk for glioma, a malignant type of brain cancer¹, associated with wireless phone use.

Extract: IARC classification of RF as a possible carcinogen, developed by 31 scientists from 14 countries, and including radiation emissions from base-station antennas, radio/TV towers, radar, Wi-Fi, smart meters, etc.^v.

In conclusion, I request that this submission be included in full in your report to the Environmental Commissioner, as well as in reports to any other party involved in this EIA process, including City of Windhoek. This letter will also be circulated as general information to the public, to improve awareness on RF issues.

A.L. Brandt

RADIATION AWARENESS NAMIBIA

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- i www.sciencedirect.com/science/journal/13882457/125/2: ICNIRP statement, G. Ziegelberge, accepted 26 May 2009 (2009 Health Physics Society)
- ii BioInitiative Report Update 2012; <http://www.bioinitiative.org/table-of-contents/>
- iii International Agency for Research on Cancer: www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208_E.pdf
- iv <http://www.powerwatch.org.uk/news/2014-11-11-who-iarc-rf.asp>
- v International Agency for Research on Cancer: www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208_E.pdf
- v Dr Robert Baan, Principal Co-ordinator of WHO/IARC Press Release 208 of 31 May 2011.