



Statement prepared by

Planetary Association for Clean Energy

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**Submission to the Royal Society of Canada's Expert Panel
Reviewing Safety Code 6 Title:**

Expert Panel Review [*redacted words*] Safety Code 6¹

***Limits of Human Exposure to Radiofrequency Electromagnetic Energy
in the Frequency Range from 3 kHz to 300 GHz***

**Safety Code 6 Public Consultation
University of Ottawa, Desmarais Building, Room 12102
55 Laurier Avenue East, Ottawa
(October 28, 2013)**

¹ Title indicated in contract between **Health Canada** and the **Royal Society of Canada**.

Thank you, Mr. Chair.

I speak on behalf of the Planetary Association for Clean Energy.

Your Excellencies, Ladies and Gentlemen,

We welcome the current review process for the Safety “code”, essentially unchanged since 1979 which has as its origin:

- post-war **Secretary of State /Communications Canada / Industry Canada**’s concerns on non-interference between telecommunication systems for the national grid (radio & television, telephony and communication, radar),
- the advice of NAZI scientists emerging out of detention and extermination camp *in vivo* human body experiments under the U.S. “**Paperclip**” project when requested to develop parameters for the spectrum’s usage, and
- the **ICNIRP** (registered as a German social club that has **WHO** NGO affiliation) that produces impressive manifestos that even its head, **Paulo Vecchia** emphasizes that their own guidelines, “are not mandatory prescriptions for safety”, were never intended to be of any “medical collateral values” and are based on, “acute thermal values” (i.e. death or near-death) within 6 minutes as estimated in laboratories using “phantom” heads (conductive liquid-filled plastic dolls).

In the meantime, this “code” has drifted into new circumstances.

Noting that the **Council of Europe** and the **European Parliament Resolution 1815 (2011)** indicates a maximum of $1 \mu\text{W}/\text{cm}^2$, and noting that in contrast with the natural, healthy/risk free background broadband microwave (300 MHz to 3 GHz) power density level of less than $0.000001 \mu\text{W}/\text{cm}^2$ since 1979:

Average urban emissions rose from $0.005 \mu\text{W}/\text{cm}^2$ to $1\mu\text{W}/\text{cm}^2$, from 1980 to 1999 (before the implementation of cellphones).

In 2011, average indoor background residential fields – even without indoor wireless devices - ranged between 0.01 to over $4.0 \mu\text{W}/\text{cm}^2$.

In 2013, outdoor levels are between 0.1 to over $15.0 \mu\text{W}/\text{cm}^2$, at 1 meter above ground. Under some HV powerlines and in some major traffic corridors (Gardiner Expressway) levels approach or exceed $1,000 \mu\text{W}/\text{cm}^2$.

In some suburbs, at head level, power density can range between 40 to $100 \mu\text{W}/\text{cm}^2$ in view of Neighbourhood Area Networks / NAN (from SMART meters, Wi-Fi, routers, etc) and is expected to rise another 20 to 50 fold by 2015, based on industry forecasts.

An Ottawa case: a residence built as a federal housing demo for the electrosensitive is a bay of SMART meters, whose power density levels have risen:

January 2012 ($20 \mu\text{W}/\text{cm}^2$)

July 2013 ($40 \mu\text{W}/\text{cm}^2$)

October 2013 ($80 \mu\text{W}/\text{cm}^2$ - with Total Harmonic Distortion of up $4,500 \mu\text{W}/\text{cm}^2$)

Above increases may be cross-talks with neighbouring wireless devices (LAN/NAN).

When emissions exceed current limits, there is no available recourse. No federal jurisdiction and oversight exists. Relief is humanitarian mercy - not an option that the sick and afflicted individuals can rely on. The code is imposed on tens of millions of Canadians in a way that available jurisprudence could implicate manslaughter charges on those designing, regulating and applying it. Note the 1947 ***Nuremburg Code (Medical)*** states that exposing people without informing them how this electromagnetic spectrum can affect their health & without their consent is a contravention (intended to forbid the experience committed by the NAZIs).

The “code” is not drafted like an Electrical Code to explain implementation. It does not foresee special cases or applications. It assumes young healthy male bodies (soldiers) exposed to a single device for less than 6 minutes or equivalent, not reality.

It ignores damages incurred at endorsed emission levels: modification of DNA in humans, animals or plants, accelerated population aging, Alzheimer's, psycho-social behavioural problems, neurodegenerative diseases, fertility and reproduction problems, immune systems disorders, insomnia and electro-hypersensitivity and between the use of wireless systems and certain types of cancer, including brain, auditory nerve, and parotid gland tumours. It tolerates: acceleration of corrosion of strategic infrastructures, buildings, bridges, pipelines and of nuclear power stations, at an estimated public purse maintenance cost of billions if not trillions of dollars. Agriculture is also adversely affected: soil, cultivation, production and processing.

Emission sources have risen from the few thousand for which the code was intended in 1979 to over 100,000,000 transmitters, resulting in a biologically significant, un-studied phenomenon of random, continuous microwave exposure from any direction.

There is a need to develop a regulatory framework that includes all aspects related to the spectrum encompassed under the current Safety Code 6, one which is up-to-date and consistent with the emerging introduction of new telephony, devices, and their supporting infrastructures.

Such a framework should follow the *Aarhus Convention*².

There is also a need for an independent secretariat mechanism for the inter-disciplinary determination of the health consequences on the general population of these wireless technologies and for a major investigation to be carried out into the biological effects on human, animal and plant organisms. Such an investigation and resulting report requires the need for a fair representation of all stakeholders involved, for transparency and effective oversight in order to assess the scientific integrity to help forestall possible conflicts of interests or fraud in the research sector. Public and ecosystems are to be protected from adverse effects of existing and other emerging technologies. In the light of continuously evolving findings of new medical studies we encourage solutions based on dialogue and negotiations involving UN agencies like **World Health Organisation (WHO)**, the **International Labour Organisation (ILO)**, as well as the **Food and Agriculture Organisation (FAO)** and other UN agencies, governments, industry stakeholders, NGOs, consumer and residents associations. Industry stakeholders can already influence certain factors (e.g. distance between a given site and transmitters, the direction of a transmitting antenna in relation to living environments) to better protect people and animals.

Thank you, Mr. Chair,

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² **Aarhus Convention**: This requires that each state party establish mandatory systems to obtain information on proposed and existing activities that could significantly affect the environment. This provision is clearly aimed at the private sector and is supplemented by **Article 5(6)** which requires states parties to encourage operators whose activities have a significant impact on the environment to inform the public regularly of the environmental impact of their activities and products, through eco-labeling, eco-auditing or similar means.