

Marg's Comments as a Taxpayer:

Lack of transparency and accountability

- Needed are more details on breakdown of costs. Where can we find the numbers behind the data presented? The supporting reports (e.g., from Diameter Services) and analyses?
- Very concerned about possible cost overrun as in Ontario
Of particular concern are the IT projections, See Table in 5.1 IT Support Costs: Listed as a benefit – “Introduction of automated infrastructure technology will increase IT costs and would include meter reading and data collection software, network, data and cellular support costs” vs currently: “Meter reading software and equipment currently in use requires limited IT support to operate and maintain.”
- Cost of batteries/lifetime, No details on opt-out costs
- Cyber-security/hacking, Liability issues
- Lack of oversight by elected officials – this is a \$ 135 million project!
- Today's vote needs to be deferred. A full public consultation is necessary.

Water Meter Renewal: Concerns about Health, Liability and Opt-out Provisions

By Margaret Friesen M.Sc.

Environmental Health Association of Manitoba



To the Water, Waste and Environment Committee

City of Winnipeg
October 30, 2023



Founded in 2012. Not-for-profit, non-governmental, non-partisan organization run entirely by volunteers and funded by donations.

Goals of EHA-MB:

To promote education and information on environmental sensitivities and environmentally induced illnesses to the public, educational institutions and medical community in Manitoba.

Margaret (Marg) Friesen



- **Masters Science Degree in Entomology/Toxicology**
- **More than 30 years with the federal government and University of Manitoba**
- **Original research projects in ecosystem toxicology, DNA population genetics of Arctic marine mammals**
- **Post retirement, as a volunteer, researched wireless radiation (radiofrequency electromagnetic radiation RF-EMR) and impacts on environmental health.**
- **Director of the Environmental Health Association of Manitoba and an advisor to Canadians for Safe Technology.**



Contents lists available at [ScienceDirect](#)

Building and Environment

journal homepage: www.elsevier.com/locate/buildenv



Building science and radiofrequency radiation: What makes smart and healthy buildings

Frank M. Clegg^{a,*}, Margaret Sears^b, Margaret Friesen^c, Theodora Scarato^d, Rob Metzinger^e,
Cindy Russell^f, Alex Stadtner^g, Anthony B. Miller^h

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Defer Today's Vote - Further Information on Health and Insurance Aspects is Needed

- Vote on this matter should be deferred – A full public consultation is necessary
- More information needs to be collected and background data provided to the public
- Investigate wired options
- Opt-in (instead of opt out) if wireless meters are selected
- If opt-in, residents should be advised that they will be exposed to radiofrequency/microwave emissions 24/7 year-round to a Group 2B, *possible* human carcinogen. There must be informed consent
- Investigate examples of over-runs especially with regard to IT (example Ontario)
- Different cost scenarios with opt-in/opt-out
- Ensure proper liability insurance is in place
- Project is reviewed throughout and open to public comment
- Inclusion as a Public Engagement item on the City of Winnipeg website.

October 26, 2023 submission:

**Barry Malowanchuk retired Professional Engineer
with 37+ years service at Manitoba Hydro; last 10 years as
the Senior Telecommunications Engineer**

**“ I believe you need to defer decision making on this
project until further information can be provided to
the public and all feedback is considered!”**

Health

Wireless “ smart” water meters communicate using microwave/radiofrequency (RF) radiation

Same RF as emitted from cell tower network antennas and cell phones

YES, Non-ionizing Wireless Radiation Can Cause Adverse Biological Effects at Extremely Low Levels



Physics (PhD), electrical engineering (15 years) and health sciences (30 years).

<https://ehtrust.org/science/published-research-by-paul-heroux-phd-on-electromagnetic-radiation/>

Dr. Paul Héroux
Faculty of Medicine, McGill University



Conference for MDs and others

Continuing Medical Education (CME) Credits

<https://emfconference2021.com/speaker/paul-heroux-phd/>

**More than 50 Canadian MDs
during the 2015 Revision of Safety Code 6**

Called for Health Canada to provide:

“Wireless safety standards that are more protective of the health of Canadians.”

All ignored by Health Canada

Safety Code 6 (2015) – Power Density



Health Canada / Santé Canada

Your health and safety... our priority. / Votre santé et votre sécurité... notre priorité.

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

<https://www.canada.ca/en/health-canada/services/publications/health-risks-safety/limits-human-exposure-radiofrequency-electromagnetic-energy-range-3-300.html>

Table 5. Reference Levels for Electric Field Strength, Magnetic Field Strength and Power Density in Uncontrolled Environments

Frequency (MHz)	Electric Field Strength (E _{RL}), (V/m, RMS)	Magnetic Field Strength (H _{RL}), (A/m, RMS)	Power Density (S _{RL}), (W/m ²)	Reference Period (minutes)
10 - 20	27.46	0.0728	2	6
20 - 48	58.07 / $f^{0.25}$	0.1540 / $f^{0.25}$	8.944 / $f^{0.5}$	6
48 - 300	22.06	0.05852	1.291	6
300 - 6000	3.142 $f^{0.3417}$	0.008335 $f^{0.3417}$	0.02619 $f^{0.6834}$	6
6000 - 15000	61.4	0.163	10	6
15000 - 150000	61.4	0.163	10	616000 / $f^{1.2}$
150000 - 300000	0.158 $f^{0.5}$	4.21 × 10 ⁻⁴ $f^{0.5}$	6.67 × 10 ⁻⁵ f	616000 / $f^{1.2}$

Frequency, f , is in MHz.

Red and yellow markings added

Smart meter emissions

minutes

6
6

Based ONLY on “over-heating” of body tissue by no more than 1C within a period of 6 minutes. The assumption is that if it does not over-heat (within 6 minutes), this radiation will not harm.

\$0

**No health studies have been conducted
in Canada on health effects of smart meters**

\$ Billions

**Income by the Government of Canada for
the licensing of radiofrequencies such as
for smart meters**

Health Canada has been Slow to Act on Other Toxic Agents

- **Asbestos**
- **Cigarette Smoking**
- **Dioxins**
- **Thalidomide**
- **Urea formaldehyde insulation(UFFI) and**
- **Others**

WHO Press Release

Wireless Radiation – Group 2B *possible* carcinogen

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 cancer, associated with wireless phone use.

**Medical Doctors and Scientists
Independent of Industry Influence
Calling for a Group 1 *known* human carcinogen.
Same classification as asbestos and cigarette smoke**

**Based on additional studies including
2 large-scale animal studies**

“clear evidence of carcinogenicity”

Electrosensitivity

headaches,
sleep difficulties,
heart effects,
ear ringing,
nausea,
anxiety,
depression and
more ...



Image courtesy of Canadian Educators for Safe Technology

**Wireless smart meters
will severely limit housing options**

**Exacerbation of existing housing crisis for
persons made ill by exposure to
radiofrequency/microwave emissions**

Liability – where's the insurance?

Need to recognize, prevent, inform about risks ...

Insurance Exclusions for Health Damages

Swiss Re is the world's second largest secondary insurance (reinsurance) company.

- *“explicitly refusing to insure against damages from 5G and other EMFs”*

Pending Government Immunity for Telecoms Uninsurable 5G Network?



Devra Davis [Follow](#)

Jun 14 · 5 min read ★



The biggest telecommunications companies in Canada - Bell, Rogers, TELUS all acknowledge potential risk

Example:

Rogers Communications Inc. Rogers 2022 Annual Report

- Posted to SEDAR; Rogers Communications Inc. Mar 9 2023 18:25:25 ET Annual report – English PDF 8492K
- Quote Heading Page 66, **“REGULATORY RISKS”**
- Quote from Page 67, **“Radio frequency emissions**
- From time to time, media and other reports have highlighted alleged links between radio frequency emissions from wireless devices (including new 5G technology) and various health concerns, including cancer, and interference with various medical devices, including hearing aids and pacemakers. This may discourage the use of wireless devices or **expose us to potential litigation** even though there are no definitive reports or studies stating that these health issues are directly attributable to radio frequency emissions. Future regulatory actions may result in more restrictive standards on radio frequency emissions from low-powered devices like wireless devices. We cannot predict the nature or extent of any restrictions.

Does the City of Winnipeg have any liability insurance in case of lawsuits due to harm from wireless smart water meter emissions?

If so, please make documentation available to the public, in writing, of possession of liability insurance that does not exclude health claims due to radiofrequency (RF) radiation exposure to emissions from the smart water meters as proposed in the Public Service Report “Advanced Water Metering Solution Business Case.”

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Thank you

Electromagnetic fields - EMF

A field of force that consists of both electric and magnetic components, resulting from the motion of an electric charge and containing a definite amount of electromagnetic energy.

Cannot see, taste or smell EMFs. We are electrical beings e.g. EKGs (heart), EEGs (brain)