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What We Do Want:

- For MA to call on the FCC to respond to 2013 testimony regarding the irrelevancy, inadequacy and lack of safety of RF guidelines which are more than 30 years out of date
- For MA to address the use of tobacco scientists by the MA DPU
- For the EHS population to receive urgently-needed protections especially for safe housing in the U.S. under the ADA and in accordance with international human rights law, *prior to the installation of additional wireless infrastructure in the Commonwealth of MA*

**“This is a call to all
who hold the world as sacred.”**

National Academies of Science: US RF Research is Inadequate

“The 2008 National Academy of Sciences (NAS) Report, *Identification of Research Needs Relating to Adverse Health Effects of Wireless Communication*, identified

inadequacies in the research upon which the current US Radiofrequency radiation (RF) safety guidelines are based. The NAS Report did find 20 categories of inadequacies, including:

- a) Exposure of juveniles, children, pregnant women, and fetuses ...for RF fields from base station antennas
- c) Multilateral exposures.
- d) Multiple frequency exposures.
- g) Models for men and women of various heights and for children of various ages.
- j) RF exposure in close proximity to metallic adornments and implanted medical devices (IMDs) including metal rim glasses, earrings, and various prostheses (e.g., hearing aids, cochlear implants, cardiac pacemakers, insulin pumps, Deep Brain Stimulators).
- k) Sufficiently long exposure and follow-up to allow for detection of effects that occur with a latency of several years.

l) Lack of information concerning the health effects associated with living in close proximity to base stations.

- m) Research that includes children, the elderly, and people with underlying diseases.
- n) Research on possible adverse RF effects identified by changes in EEG (electroencephalogram) activity.
- o) Lack of information on possible neurophysiologic effects developing during long-term exposure to RF fields.
- p) Studies focusing on possible adverse RF effects identified by changes in cognitive performance functions.
- q) Effects of RF exposure to the sensitive biological targets of neural networks.

r) Possible effects of RF exposure on fetal and neonatal development.

s) Possible influences of exposure on the structure and function of the immune system, including prenatal, neonatal, and juvenile exposures.

t) Possible influences of RF exposures on the structure and function of the central nervous system, including prenatal, neonatal, and juvenile exposures.

Free Download:

<https://www.nap.edu/catalog/12036/identification-of-research-needs-relating-to-potential-biological-or-adverse-health-effects-of-wireless-communication-devices>

“Based on the 2008 NAS findings it cannot be asserted that US RF safety policy protects all members of the public from all mechanisms of harm in all exposure scenarios.”

Janet Newton, EMR Policy Institute, testimony to MA Dept. of Public Utilities

International RF Limits

<http://www.justproveit.net/content/safety-standards>

NATION	EXPOSURE LIMITS FROM WIRELESS TRANSMITTERS
USA standard	580 microwatts
Russia	10 microwatts
China	6 microwatts
Italy	5 microwatts
Switzerland	4.2 microwatts
Salzburg, Austria	.1 microwatt
Lichtenstein	.1 microwatt

**Human Rights: Nov. 2013 Joint Filing
by Cities of Boston and Philadelphia
Over Failure of FCC to Address ADA
Americans with Disabilities Act
re: Electro-Sensitive Persons vs.
Telecommunications Act of 1996**
<https://ecfsapi.fcc.gov/file/7520958706.pdf>

**US RF Exposure Guidelines
Why So High?
The Smoking Gun: 1976**

<https://electroplague.com/2014/09/04/report-dia-biological-effects-of-electromagnetic-radiation-1976/>

"The FCC admits its own lack of expertise in the field. But the overlap of federal agency responsibilities for RF radiation protection and the merely advisory status of the Radiofrequency Interagency Work Group often leaves leadership unclear and encourages a pass-the-buck attitude ...

The 1999-2000 judicial challenge to the FCC's 1996 rules never reached the issue of "electrosensitivity" as a cognizable disability under the Americans with Disabilities Act. ("ADA") Here again, an agency responsible for ADA implementation acknowledges that the impairment may be disabling but has promised merely further inquiry. After more than a decade, that investigation remains unopened. The dockets here have been updated with massive additional evidence of the crippling effects of RF radiation on an admitted minority – but a suffering minority – of U.S. citizens. The FCC and its sister regulatory agencies share responsibility for adherence to the ADA and should replace promises with serious attention to a serious medical problem. This is one area where the FCC could lead in advice to electrosensitive persons about prudent avoidance."

"If the more advanced nations of the West are strict in the enforcement of stringent exposure standards, there could be unfavorable effects on industrial output and military functions."

U.S. National Toxicology Program Results

The U.S. National Toxicology Program released results showing that exposure to non-thermal levels of pulse-modulated microwave radiation causes cancer, specifically intracardiac schwannomas and malignant gliomas, and breaks DNA.
(<http://ehtrust.org/science/facts-national-toxicology-program-cellphone-rat-cancer-study/>).

Epidemiological data shows that the rate of glioblastoma multiforme of the brain, a malignant type of glioma, is increasing. (<http://microwavenews.com/news-center/ntp-and-brain-tumor-rates>).

By focusing only on lung cancer (with a very long gestation period) and ignoring other illnesses and second smoke, the tobacco industry delayed necessary regulation and liability for decades. The wireless industry has similarly attempted to reduce scrutiny to the issue of brain tumors for cellphones users, without

addressing towers, antennas, and involuntary exposures, using the same tactics and in many cases the same scientists.

EMF Scientist Appeal

Recently, in 2015, more than 200 scientists from 40 countries having over 2,000 published peer-reviewed journal articles to their collective credit in the field of biological impacts from RF/EMF appealed to the U.N. and the WHO for greater precautions with regard to exposures from wireless technologies. This is the latest in many such alerts to the health effects of RF/EMF exposure. (<https://www.emfscientist.org/>).

Overloading of Towns and Cities with Radio Transmitters (Cellular) A Hazard for Human Health and a Disturbance of Eco-Ethics

(<http://der-mast-mussweg.de/pdf/reden/hechtvortrag070724englisch.pdf>)

American Academy of Environmental Medicine Recommendations Regarding Electromagnetic and Radiofrequency Exposure

<https://www.aaemonline.org/pdf/AAEMEMFmedicalconditions.pdf>,

Letter to FCC: (189 pages)
<https://www.aaemonline.org/pdf/FCCLtr.pdf>

Dr. Dietrich Klinghardt Smart Meters & EMR

The Health Crisis Of Our Time

43 minute video: Impact on Chronic Illness, Lyme, Environmental Illness, Fertility, Autism, Parkinson's
<https://www.youtube.com/watch?v=PktaaxPI7RI>

May 2011, WHO's IARC Declared RF Possible Human Carcinogen

http://www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208_E.pdf

In 2011, the International Agency for Research on Cancer (IARC), a committee of the World Health Organization (WHO), classified RF radiation as a Group 2B possible human carcinogen in the same category as lead and DDT. Several members of the IARC working group involved with this classification now conclude the risks are much greater than originally thought. Dr. Lennart Hardell reports that several studies indicate a Group 1 human carcinogen classification is justified, placing RF in the same category as tobacco, asbestos, and benzene

Dr. Anthony Miller

<https://www.youtube.com/watch?v=WARxnaxrRkK>

Dr. Anthony Miller from the University of Toronto's Dalla Lana School of Public Health: RF exposure should be classified as a 2A probable carcinogen, not a 2B (possible carcinogen)
4-minute video

Darius Leszczynski 2017

Slides of keynote presentation at ARPS8 2017 re: RF need for precaution, 31 slides
<https://betweenrockandhardplace.files.wordpress.com/2017/08/final-arps2017-between-a-rock-and-a-hard-place.pdf>

**It Is Not Just Cancer,
Rates of Neurological Deaths in U.S.
(Alzheimer's) Skyrocket Out of
Proportion to Increases in Other
Countries, especially for older
women**

http://surgicalneurologyint.com/surgicalint_articles/neurological-deaths-of-american-adults-55-74-and-the-over-75s-by-sex-compared-with-20-western-countries-1989-2010-cause-for-concern/ USA

55–74 male neurological rates had been equal 17th highest but had risen to being second highest, while USA females went from 10th to being highest out of 21 countries. Moreover, apart from Portugal, over the 20 years the USA had statistically significant greater rises in TND than 16 other countries, indicating disproportionate changes in neurological morbidity and mortality in American adults (55–74) and the over 75's.

Scientists and Drs. RF Appeals

http://www.cellphonetaskforce.org/?page_id=128

Vienna Resolution 1998, Salzburg Resolution 2000, Declaration of Alcalá 2002, Catania Resolution 2002, Freiburger Appeal 2002, Bamberger Appeal 2004, Maintaler Appeal 2004, Coburger Appeal 2005 Oberammergau Appeal 2005, Haibacher Appeal 2005, Pfarrkirchener Appeal 2005,

Freienbacher Appeal 2005, Lichtenfelser Appeal 2005, Hofer Appeal 2005, Helsinki Appeal 2005, Parish Kirchner Appeal 2005, Saarlander Appeal 2005, Stockacher Appeal 2005, Benevento Resolution 2006, Allgäuer Appeal 2006, WiMax Appeal 2006, Schlüchterner appeal, Brussels Appeal 2007, Venice Resolution 2008, Berlin Appeal 2008, Paris Appeal 2009, London Resolution 2009, Porto Alegre Resolution 2009, European Parliament, EMF Resolution 2009, Dutch Appeal 2009, Int'l Appeal of Würzburg 2010, Copenhagen Resolution 2010, Seletun Consensus Statement 2010, Potenza Picena Resolution 2013, Doctors' Appeal to Health Canada 2014. Scientists' Declaration to Health Canada 2014, International Scientists Appeal 2015

European Parliament (2008): Mid-term review of the European Environment and Health Action Plan 2004-2010

"Notes that the limits on exposure to electromagnetic fields which have been set for the general public are obsolete, since they have not been adjusted in the wake of Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0Hz to 30 GHz)(9), obviously take no account of developments in information and communication technologies, of the recommendations issued by the European Environment Agency or of the stricter emission standards adopted, for

example, by Belgium, Italy and Austria, and do not address the issue of vulnerable groups, such as pregnant women, newborn babies and children" (item 22)

<http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P6-TA-2008-0410+0+DOC+XML+V0//EN>

Excellent Video and Comprehensive Testimony by Dr. Paul Dart re: Antennas Summarizing international Research Findings

FCC Filing:

<http://apps.fcc.gov/ecfs/document/view;jsessionid=P8LSSB1FQxFnnlc8S7h1ZJvG3NnWhVjv mwCxsHGyg1rSR925yyNY!-739454830!608620108?id=7520940903>

Video

<https://www.youtube.com/watch?v=owCeCC6B69k>

Council of Europe Adopts Final Resolution Warning of Dangers of Electromagnetic Fields

<http://www.cellphonetaskforce.org/wp-content/uploads/2012/01/eres1815.pdf>

2012 BioInitiative Report: A Rationale for Biologically-based Public Exposure Standards for Electromagnetic Fields (ELF and RF)

Evidence for Effects; Gene and Protein Expression, Genotoxic, Stress Proteins, Immune Function, Neurology, Behavior, Blood-Brain Barrier, Brain Tumors and Acoustic Neuroma, Childhood Cancer (Leukemia), Melatonin, Alzheimer's disease, Breast Cancer, Fertility, Autism

<http://www.bioinitiative.org/table-of-contents/>

"Numerous recent scientific publications have shown that EMF affects living organisms at levels well below most international and national guidelines. Effects include increased cancer risk, cellular stress, increase in harmful free radicals, genetic damages, structural and functional changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being in humans. Damage goes well beyond the human race, as there is growing evidence of harmful effects to both plant and animal life."

International Commission on Non-Ionizing Radiation Protection (ICNIRP) re: Vulnerable Populations

"Different groups in a population may have differences in their ability to tolerate a particular NIR (non-ionizing radiation) exposure. For example, children, the elderly, and some chronically ill people might have a lower tolerance for one or more forms of NIR exposure than the rest of the population. Under such circumstances, it may be useful or necessary to develop separate guideline levels for different groups within the general population, but it may be more effective to adjust the guidelines for the general population to include such groups." ICNIRP Statement, General Approach to Protection Against Non-ionizing Radiation, (HEALTH PHYSICS 82(4):540-548; 2002)

<https://www.icnirp.org/documents/philosophy.pdf>

**Human Rights:
Electromagnetic Hypersensitivity**

EUROPAEM EMF Guideline 2016

for the prevention, diagnosis and treatment of EMF-related health problems and illnesses
<https://www.degruyter.com/downloadpdf/j/reveh.2016.31.issue-3/reveh-2016-0011/reveh-2016-0011.pdf>

Captured Agency, How the FCC is Dominated by the Industries It Presumably Regulates

https://ethics.harvard.edu/files/center-for-ethics/files/capturedagency_alster.pdf

Asking the FCC to address the health, environmental, and human rights issues associated with wireless technologies and infrastructure is like asking Jack the Ripper to drive carefully on a date with your daughter

Impact on Property Rights and Home Values Source:

<https://www.emfanalysis.com/property-values-declining-cell-towers/>

1. <http://www.businesswire.com/news/home/20140703005726/en/Survey-National-Institute-Science-Law-Public-Policy> 94% of people surveyed would not buy or rent a home next to a cell tower

2. <https://www.emfanalysis.com/wp-content/uploads/2016/04/Impact-of-Cell-Towers-on-House-Prices.pdf> The Impact of Cell Phone Towers on House Prices in Residential Neighborhoods, *The Appraisal Journal*

3. <http://www.nytimes.com/2010/08/29/real-estate/29Lizo.html>

NY Times article on how realtors have a hard time selling homes next to cell towers

4. <http://www.realtor.org/field-guides/field-guide-to-cell-phone-towers> National Association of Realtors

5. <http://www.nolo.com/legal-encyclopedia/emf-radiofrequency-exposure-from-cell-32210-2.html> Nolo Press article noting successful litigation against cell phone tower installations related to declining property values

6. <https://sites.google.com/site/nocelltow Erinourneighborhood/home/decreased-real-estate-value> summary of various press articles from around the country related to declining property values around cell towers

7. http://www.prres.net/papers/Bond_Squires_Using_GIS_to_Measure.pdf Study using the mapping software GIS

to show that property values were higher on average away from cell phone tower installations

8. New Zealand Study on Declining Property Values Around Cell Towers

New Zealand study showing that property values decrease after cell phone tower installations

9. <https://www.youtube.com/watch?v=edlIhdRxE5s> Homeowners speak out against plans to build 2 cellphone towers in Liberty Township 1:51

10. **Many resources here:**

<http://nocelltoweratpgcpschools.blogspot.com/2017/07/home-values-drop-up-to-20-when-cell.html>

Russian TV Documentary *Nowhere to Run*

USA Electrosensitive People Try to Escape Wireless Technology

The 2017 52-minute film features Massachusetts residents from Ashland, Norfolk, Greenfield, Worcester, and Hopkinton, and is being viewed worldwide. Filmmaker Alexey Brazhnikov also visited New York, Washington D.C., Connecticut, and Greenbank West Virginia's radio free zone.

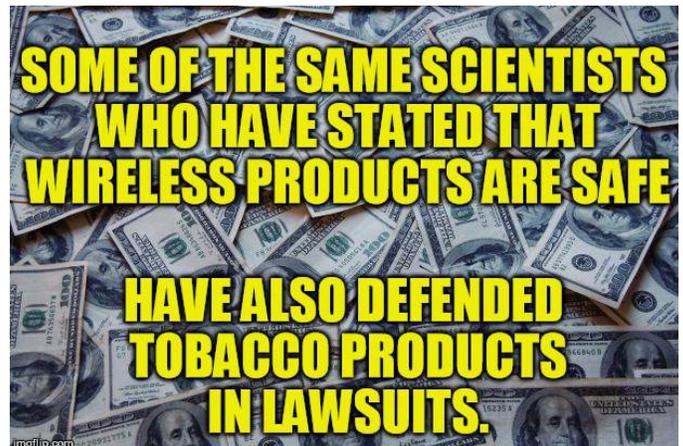
<https://rtd.rt.com/films/wi-fi-refugees/> or <https://youtu.be/KWMNTuIZqKo>

Resonance, Beings of Frequency

Not only are we surrounded by natural frequencies, our bodies are filled with them too. Our cells communicate using electro magnetic frequencies. Our brain emits a constant stream of frequencies and our DNA delivers instructions, using frequency waves. Without them we couldn't exist.

<https://vimeo.com/54189727>

Massachusetts Department of Public Utilities Overrides Citizen Health Complaints and RF Safety Concerns on the Basis of Testimony by Career Tobacco Scientist Peter Valberg of Product Defense Firm Gradient



When the MA DPU filed its initial grid modernization order in Dec. of 2013, 100/120 public commenters expressed concerns including safety, security, privacy, cost, greenwashing, and health. <http://170.63.40.34/DPU/FileRoomAPI/api/Attachments/Get/?path=12-76%2f12-76-Order-7382.pdf>

In Feb. 2014, the MA DPU held hearings. Peter Valberg of the notorious Cambridge, MA product defense firm Gradient testified on behalf of smart meter health safety. It remains unclear whether he was paid by the MA DPU or the utility company or both. <http://170.63.40.34/DPU/FileRoomAPI/api/Attachments/Get/?path=12-76%2f12-76-Filing-9300.pdf>

Valberg filed no written testimony, but the subsequent MA DPU order that dismissed citizen health complaints was

attributed primarily to Gradient claims.
http://170.63.40.34/DPU/FileRoomAPI/api/Attachments/Get/?path=12-76%2fOrder_1276B.pdf

The DPU attributed statements to Gradient that were not part of the oral testimony, leading health advocates to conclude that Valberg collaborated with the DPU to draft the order, *(in the same manner that Monsanto's emails uncovered in the Roundup lawsuit in California tell an alarming story of ghostwriting, scientific manipulation, collusion with the Environmental Protection Agency (EPA), and previously undisclosed information about how the human body absorbs glyphosate)*

<http://www.collective-evolution.com/2017/08/09/the-poison-papers-new-documents-expose-monsanto-the-epa-more-weve-been-lied-to/>
<https://www.baumhedlundlaw.com/.../monsanto-roundup-lawsuit/.../>

Peter Valberg testified for Phillips Lights cigarettes the same week in February that he testified for the MA DPU.
https://www.gpo.gov/fdsys/pkg/USCOURTS-ohnd-5_10-cv-01741/pdf/USCOURTS-ohnd-5_10-cv-01741-0.pdf

Valberg also testified before the Worcester Zoning Board of Appeals on behalf of WiMax antennas for National Grid's smart meter pilot program in May 2014, mid-representing international RF limits. Valberg has testified in many other states and jurisdictions.

Center For Public integrity

The MA DPU's health expert Peter Valberg was featured in an investigative series by the Center for Public Integrity in 2016.

<https://www.publicintegrity.org/environment/science-sale>

<https://www.publicintegrity.org/2016/02/18/19307/brokers-junk-science>

<http://www.publicintegrity.org/2016/02/08/19223/meet-rented-white-coats-who-defend-toxic-chemicals>

<https://www.publicintegrity.org/2016/02/10/19265/making-cancer-cluster-disappear>

<https://www.publicintegrity.org/2016/03/31/19498/senators-seek-better-conflict-disclosures->

Meet the 'rented white coats' who defend toxic chemicals

How corporate-funded research is corrupting America's courts and regulatory agencies

By David Heath | 5:00 am, February 8, 2016 | Updated 5:00 am, February 8, 2016



Emilia Uidell for the Center for Public Integrity

scientific-articles

Human rights advocates recognize that Peter Valberg belongs before an international criminal court for crimes against nature and crimes against humanity, and not testifying to justify millions of dollars of investment by MA residents for unsafe transportation and utility infrastructure.

In addition to Valberg's comprised testimony, the 7-page health "study" presented by the City of Worcester is an embarrassment to the state of health science, while the Assessor's report claimed that the installation of a 90-foot tower with 5 microwave antennas would not impact property values due to tree cover and other property attributes.

Health Study: http://haltmasmartmeters.org/wp-content/uploads/2013/08/City_Council_Health_2-4-14-p_1-7of107.pdf

Assessor report:

[0425-1a-propertyvalues-7pages-attachment-1](#)

Media: Go Local Worcester

<http://www.golocalworcester.com/news/worcester-is-front-line-in-war-over-utilities-smart-meters>

Link to Worcester Magazine article "A Towering Concern on Torey Fort Lane" has disappeared, as have other links.



Jun 19, 2013: [A towering concern on Torey Fort Lane](#) Tim Sullivan describes it as four years of hell. ... company officials want to build a new 80-foot tower as part of the Smart Grid pilot program. (Worcester Magazine)

HaltMAsmartmeters.com provides some historical records of the smart meter issue in Worcester.

<https://smartgridawareness.org/> is also highly recommended for information about privacy, security, fires, hack-ability, cost, accuracy, green-washing, and other smart meter issues.

The Worcester Pilot 90-Foot Tower 5 Microwave Antenna Debacle

During the pilot, National Grid informed the Worcester community that it could override local zoning restrictions under the Telecom Act of 1996 and install a 90-foot tower with 5 microwave antennas in a residential area.

The Torey Fort neighborhood was the site of a contentious battle that was tied up at the Zoning Board of Appeals for over a year.

When Worcester's legal counsel ruled that the utility was not, in fact, a telecom provider, and was not protected by TCA 1996, National Grid eventually placed the antenna in a nearby church steeple, near a school, using a Jobs Creation Act entitlement that requires antenna hosts to accommodate other carriers (co-location).

Co-location is a looming environmental justice and health issue (and was built into the contract for the MBTA monopoles.)

Even though the tower was not installed in the neighborhood next to homes, National Grid tripled the size of the substation on Torey Fort Lane. The expansion was in violation of sound ordinances for over a year. The site is now surrounded by industrial-scale sound walls.

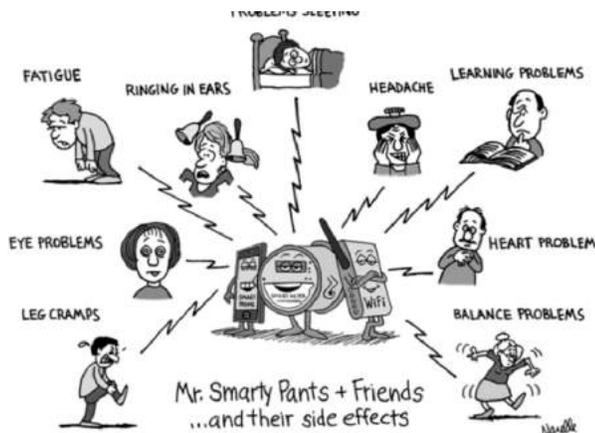
No Health or Environmental

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Smart meter damage to rose bush in Worcester

Despite lack of pre-market safety testing and reports of harm in other communities, the pilot contained no health or environmental monitoring.



Adverse Health Effects From Smart Meters

<https://smartgridawareness.org/2014/04/20/the-health-argument-against-wireless-smart-meters/>

Those who raised health concerns or complaints were marginalized and ignored. Some residents reported being afraid to complain about symptom development due to fear of ridicule in the atmosphere of outright dismissal of the legitimacy of their experience.

Rather than seeking to determine what kinds of variables might play a factor in reports of adverse impacts, or investigating reports of sleep interference, headaches, ringing in the ears, or heart arrhythmias, the pilot was imposed on the community with the official support of Worcester's administration, leaving residents defenseless. Four City Councilors attempted to advocate for neighborhoods but were over-ruled.

Peter Valberg and Gradient Have Been At It In MA and Elsewhere For A Long Time Providing 'Expert' Health Testimony

List of proceedings through 2007 with Valberg testimony (not including ghost writing)

https://www.velco.com/library/document/download/1883/PET%2016_2.pdf

Valberg testifying in Environmental Justice case in Brockton, 2016

<http://www.mass.gov/eea/docs/dep/service/adr/17decis/brocktonpower2011-025and026rfd.pdf>

In 2007, Microwave News reported that “When the residents of the Oak Hill Neighborhood of Newton challenged rising AM radio transmission exposures, the radio stations brought in two consulting firms that help corporations mired in EMF and RF health disputes: Gradient Corp and Exponent. A report prepared by Gradient's Peter Valberg concluded that ‘careful review of the whole body of literature... have [sic] not identified reasons to believe that the current RF safety standards are not protective of public health.’” Exponent's Linda Erdreich prepared a report that sought to reassure the town that there was little to worry about. <http://microwavenews.com/news-center/koreans-again-link-am-radio-childhood-leukemia-rfi-tops-health-us-tower-siting-battle>

UTC Misrepresents Smart Meter Safety to National Conference of State Legislators based on – Guess Who? Peter Valberg

On August 6, 2012, Mike Oldak of the Utilities Telecom Council presented a workshop to the National Conference of State Legislators at the NCSL Energy Summit, indexed Smart Meter Safety, in which scientists from Gradient and Exponent are referenced.

After the IARC classified RF as a possible human carcinogen in May of 2011, the 2012 powerpoint states: Slide #7 Expert Testimony Dr. Valberg, testifying before the Maryland PSC stated “IARC has not found any ...adverse health effects established from exposure to RF fields at levels

below the international guidelines on exposure limits published by the International Commission on Non-Ionizing Radiation Protection.” http://www.ncsl.org/documents/energy/Oldak_PPT.pdf

Expert Testimony

- **Dr. Valberg, testifying before the Maryland PSC stated**
 - IARC has not found any “... adverse health consequences established from exposure to RF fields at levels below the international guidelines on exposure limits published by the International Commission on Non-Ionizing Radiation Protection.”
 - http://webapp.psc.state.md.us/Intranet/Casenum/CaseAction_new1.cfm?CaseNumber=9208

- **Dr. Yakov Shkolnikov and Dr. William H. Bailey testifying before the Public Utility Commission of Nevada**
 - “... the evidence is limited that cancer develops from exposures from RF fields.” “... the indications of potential risk derive almost entirely from statistical associations in some studies between the use of mobile phones and certain types of cancer.”

7

Doubt Is Their Product Author David Michaels Interview re: Product Defense Firms

“They combine science with public relations to help clients avoid regulation and litigation. I have yet to see a study published by a product-defense firm that conflicts with the needs of the study’s sponsors. The intent is to cast doubt on real science. The industry has deep roots in the fight over tobacco. The big ones are Exponent, Gradient, ChemRisk, and the Weinberg Group.” <https://www.fastcompany.com/1139299/manufacturing-doubt-product-defense>

Complaints About Tobacco Scientist Peter Valberg Ignored

Complaints to Worcester’s Administration, Legislators, the Attorney General, the DPU, the Governor, and Senators Markey, Warren, McGovern

and others about Valberg's role and the corruption of the Worcester pilot program and DPU proceedings have been to no avail.

DPU Grid Modernization Orders

MA DPU order 12-76-A (2013) for Grid Modernization was misleading at best by stating "*Judging from other proceedings, it is possible that some electricity customers will question the effects of RF on their health. A number of published reports on potential health effects of AMI suggest that RF from this technology is unlikely to harm health*" when no "studies" exist.

<http://www.mass.gov/eea/docs/dpu/electric/12-76-a-order.pdf>

The modernization order MA DPU 12-76-B (2014) is fraudulent in its representation of FCC limits, stating: "Evidence from peer-reviewed studies, determinations by standards bodies, and conclusions from other jurisdictions do not support a finding that the FCC guidelines are inadequate to protect against either thermal or non-thermal effects of RF emissions.⁴⁴ The claim is not supported by the foot-noted references.

<http://www.mass.gov/eea/docs/dpu/orders/dpu-12-76-b-order-6-12-2014.pdf>

"Unreal Objects, Digital Materialities, Technoscientific Projects and Political Realities."

Kate O'Riordan's book "Unreal Objects, Digital Materialities, Technoscientific Projects and Political Realities" explains that many projects including smart meters "cannot be granted scientific legitimacy and developed without extraordinary amounts of media, public relations, celebrity endorsements and private investment."

For the Worcester pilot, this included

- Off the books expenses such as the Green- To-Growth summit
- The "donation" of 5,000 early field trial meters by vendor Itron
- The fact that the pilot was 'free' with equipment provided that does not reflect future deployment plans
- Prizes for behavior modification that have not been included in any smart meter deployment to date
- Endorsement of the pilot by key organizations in Worcester, with events at area colleges and at the Hanover Theatre,
- Consultants including tobacco scientist Peter Valberg, who was misidentified to the Worcester community as Dr. Walberg
- Pro-industry firm Navigant producing results reporting
- Misleading results claims including widely-reported 98% retention rate when over 6,000 out of 15,000 auto-enrolled residents dropped out.
- Cost of the symbolic Sustainability Hub, aptly renamed in "The Propaganda Pub" by residents distressed by the cost associated with staffing the upscale information

center in a former bar with paid college interns for the duration of the pilot. The demarcation of those living on Main Street who struggle to afford electricity contrasted painfully with the EV charging station that will never be of use to the majority of residents, and exemplified how out of touch the Hub was to a portion of the community.

More Info about pilot irregularities:

http://170.63.40.34/DPU/FileRoomAPI/api/Attachments/Get/?path=17-53%2fPatricia_Burke_comments_41917.pdf
http://170.63.40.34/DPU/FileRoomAPI/api/Attachments/Get/?path=16-28%2fBurke_comments_62216.pdf
<http://170.63.40.34/DPU/FileRoomAPI/api/Attachments/Get/?path=12-76%2f12-76-Comments-10335.pdf>

Kate O'Riordan explains, "The most forward-facing element of smart grids is the smart meter. Thus although smart grids promise clean-energy futures, in the meantime they are also driving another mountain of post-consumer electronic waste in the shape of smart meters."

The "always on" network and data centers consume vast amounts of energy.

"Smart grids allow a rebranding of energy multinationals as part of the solution to rather than the cause of, global warming."

The MA DPU Continues to Pursue Smart Meters as the Cornerstone to Grid Modernization

The MA DPU is still pursuing the deployment of wireless utility meters for customers of investor-owned utilities to enable time-of-use-billing as the default plan. (DPU 15-120, 121, 122)

Testimony of the Low Income Network to MA DPU

http://170.63.40.34/DPU/FileRoomAPI/api/Attachments/Get/?path=15-120%2fLI_Initial_Brief.pdf
(TOU rates discriminate against certain classes of customers)

Open Docket for Cost Overruns for the Worcester National Grid Smart Meter Pilot Program

The National Grid pilot has been identified as outcome-oriented research that manufactured consent and overrode community rights.

The pilot was behind schedule, is over budget, and was already granted an extension.

The MA DPU is currently holding proceedings in regard to charging ratepayers for the excessive costs.

The deadline for receipt of citizen comments if receipt by August 24.

Please support the Worcester community by calling for further independent evaluation of the pilot and the MA DPU Grid Modernization dockets.

ACTION ALERT: before 8/24

Please consider filing a comment for the National Grid pilot cost overruns by Aug. 24, as the opportunity for public comment on grid modernization has passed. You can simply state that you feel that a full-scale investigation is warranted for both the pilot and the grid modernization proceedings.

“The Department will hold a public hearing to receive comments on National Grid’s proposal on Thursday, August 24, 2017 at 2:00 p.m. at the Department’s offices, One South Station, 5th Floor, Boston, Massachusetts. The public hearing will be immediately followed by a procedural conference. Any person who desires to comment may do so at the time of the public hearing or may submit written comments no later than the close of business (5:00 p.m.) on Thursday, August 24, 2017.

One original and one copy of all written documents must be filed with Mark D. Marini, Secretary, Department of Public Utilities, One South Station, 5th Floor, Boston, Massachusetts 02110. In addition, one copy of all written documents should be sent to the Company’s attorney, Melissa G. Liazos, Esq., Senior Counsel, National Grid, 40 Sylvan Road, Waltham, Massachusetts 02451-1600. All documents should also be submitted to the Department in electronic format using one of the following methods: (1) by e-mail

attachment to dpu.efiling@state.ma.us and daniel.licata@state.ma.us; or (2) on a CD-ROM. The text of the e-mail or CD-ROM must specify: (1) the docket number of the proceeding (D.P.U. 17-53); (2) the name of the person or company submitting the filing; and (3) a brief descriptive title of the document. The electronic filing should also include the name, title, and telephone number of a person to contact in the event of questions about the filing. All documents submitted in electronic format will be posted on the Department’s website: <http://www.mass.gov/dpu>.

http://170.63.40.34/DPU/FileRoomAPI/api/Attachments/Get/?path=1753%2fNotice_of_Public_Hearing_72117.pdf

If you send testimony, please preface with this note:

“Because ratepayers were surcharged for the National Grid smart meter pilot to inform Grid Modernization decisions for Massachusetts, please post and distribute this testimony also to the following dockets: MA DPU 15-120 MA DPU 15-121 MA DPU 15-122

2014 MA Legislative Attempt to Override Local Zoning

Shortly after the antenna debacle in Worcester, in 2014 an MA senator introduced legislation to override local authority regarding the siting of wireless facilities. Many communities vehemently objected.

Mass Municipal Association

1. <https://www.mma.org/mma-letter-senate-asking-members-oppose-proposals-remove-local-authority-siting-wireless>;
2. Telecom assault on local zoning should be rejected <https://www.mma.org/telecom-assault-local-zoning-should-be-rejected>
3. Local zoning threatened by wireless industry bills <https://www.mma.org/local-zoning-threatened-wireless-industry-bills>

“The cities and towns of the Commonwealth strongly support expanding and upgrading wireless telecommunications services throughout the state for the benefit of consumers, but the expansion simply cannot come at the expense of the quality of life for residents.”
 - MA Municipal Association

The zoning override bill died in committee.

5G Infrastructure

Many states are now entertaining bills to expedite the rollout of the infrastructure-intensive 5G network.

<https://ehtrust.org/list-us-state-bills-streamlining-wireless-small-cells-das-nodes-rights-way/>

In California, there is active engaged opposition to SB 649 to preempt local authority in small cell wireless facility siting. Nearly 150 cities, and the League of California Cities®, remain opposed to SB 649. <http://ehtrust.org/cindy-lee-russell-m-d-letter-fcc-5g-review->



[radiofrequency-health-proceeding-13-84/](https://www.ehtrust.org/radiofrequency-health-proceeding-13-84/)

2013 Collocation Legislation May Be A Factor With the MBTA

Local Review of Collocation Applications, Interpretive Guidance

Wireless Telecommunications Bureau Offers Guidance On Interpretation of Section 6409(a) Of The Middle Class Tax Relief And Job Creation Act of 2012

Document Type: Public Notice
FCC Record: [DA-12-2047A1 Rcd.pdf](#)
Bureau(s): Wireless Telecommunications
Document Dates
Released On: Jan 25, 2013
Issued On: Jan 25, 2013
Document Numbers DA/FCC: DA-12-2047

MA, USA, and 5G

Massachusetts leadership appears poised to allow the FCC to provide the impetus for 5G, or via the passage of federal bills such as the Digit Act and the Mobile Act which passed in the Senate.

Mobile Now and Digit Act

Developing Innovation and Growing the Internet of Things (DIGIT) Act (S.88) and the Making Opportunities for

Broadband Investment and Limiting Excessive and Needless Obstacles to Wireless (MOBILE NOW) Act (S.19).

The DIGIT Act would create a working group to ensure that federal resources are available for home devices, such as kitchen appliances, that are Internet-enabled. The MOBILE NOW Act would facilitate the development of wireless broadband networks. These are industry and economic driven agendas that are devoid of health and environmental testing or scrutiny.

<https://www.congress.gov/bill/115th-congress/senate-bill/19/all-info>;

<https://www.congress.gov/bill/115th-congress/senate-bill/19/text>

Learn more about 5G issues here:
www.whatis5g.info.



<https://ehtrust.org/policy/fcc-approves-5g-millimeter-wave-spectrum-frontiers>

5G Wireless Technology: Millimeter Wave Health Effects

Joel M. Moskowitz, Ph.D.
Electromagnetic Radiation Safety
August 7, 2017

<http://bit.ly/saferemrMMWs>

“The characteristics of MMWs are different than the “low-band” (i.e.,

microwave) frequencies which are currently in use by the cellular and wireless industries. MMWs can transmit large amounts of data over short distances. The transmissions can be directed into narrow beams that travel by line-of-sight and can move data at high rates (e.g., up to 10 billion bits per second) with short lags (or latencies) between transmissions. **The signals are blocked by buildings, and foliage can absorb much of their energy. Also, the waves can be reflected by metallic surfaces.** Although antennas can be as small as a few millimeters, “small cell” antenna arrays may consist of dozens or even hundreds of antenna elements.” **(Hence, MBTA monopoles above the treeline.)**

Five Predictions as Cities Learn to Address Wireless Health Risks

by Lance McKee July 26, 2017

<https://www.directionsmag.com/article/1065>

1. Wireless smart meters will be abandoned. Microgrids without wireless control systems will proliferate.
2. Fiber optics will become ubiquitous.
3. Cities will want devices' emissions to be scaled down and tuned for minimum health risk.
4. Cities will support ubiquitous electromagnetic radiation monitoring.
5. Electromagnetic radiation shielding will be detailed in building codes.

Violation of U.N. Convention on the Rights of Persons with Disabilities Extracted from GUARDS Testimony to FCC

Global Union Against Radiation
Deployment From Space
<http://www.stopglobalwifi.org/>

“.....Increasing numbers of countries, such as Sweden and France, recognize Electromagnetic hypersensitivity (EHS) as an environmentally induced functional impairment or disability triggered by exposure to electromagnetic fields (including RF), as do the Canadian Human Rights Commission and European Parliament.

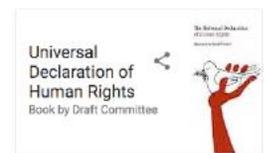
Increased wireless deployments violate: **Article 1** to “promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity”; **Article 3** “Full and effective participation and inclusion in society”; and **Article 15(2)** stating: “Parties shall take all effective legislative, administrative, judicial or other measures to prevent persons with disabilities, on an equal basis with others, from being subjected to torture or cruel, inhuman or degrading treatment or punishment”; since persons who experience environmentally-induced functional impairment from using wireless devices would have no safe options.

The European Economic and Social Committee (EESC) is an E.U. advisory body comprising representatives of workers’ and employers’ organizations and other interest groups. It issues opinions on E.U. issues to the European Commission, the Council of the E.U., and the European Parliament, thus acting as a bridge between the E.U.'s decision-making institutions and E.U. citizens. In February 2015, a formal letter of notice was sent to the EESC by the Radiation Research Trust (based in U.K.) and RF Environmental Damage and approximately 90 other organizations from around the world in support of millions of people—estimated to be between 22,000,000 and 37,000,000—throughout Europe currently suffering EHS due to RF exposure from the proliferation of radiofrequency radiation emissions and emitters (i.e., mobile phones, DECT cordless phones, cordless baby monitors, phone masts, WiFi, smart meters, the smart grid, etc.)

(http://www.radiationresearch.org/images/rtrt_articles/EM-Radiation-Research-Trust-Letter-of-Notice- Served-on-Mr-Richard-Adams.pdf).

UN Declaration of Human Rights Extracted from GUARDS Testimony

Health endangerment due to radiofrequency exposure violates Article 3 of The UN Declaration of



Human Rights, ratified by the General Assembly in 1948, which states, “everyone has the right to life, liberty and security of person.”

Studies show RF radiation can cause serious biological effects at levels far below the existing FCC RF limits (www.bioinitiative.org) (<http://momswhocare.ca/wp-content/uploads/2016/07/Over-60-pdf-studies-2016-showing-harm-below-Safety-Code-6-18April-2016.pdf>).

These effects include damage to DNA, which can lead to an increased risk for cancer and deleterious genetic mutations passed on to future generations. Decreases in sperm count and quality and increases in miscarriage and infertility have also been demonstrated in response to exposure to RF radiation.

U.N. Convention on the Rights of the Child

Under the Convention on the Rights of the Child, states/countries are responsible for acting in their children’s best interest. No child should suffer non-benefitting non-consenting involuntary RF radiation exposure and therefore be forced to incur an increased risk of cancer, functional impairment leading to ill health or cognitive impairment, or genetic damage in *their* children. Any of these outcomes, which research supports as likely, violate children’s rights.

Electromagnetic Radiation, Health and Children 2014 and UN Rights of the Child with Dr. Erica Mallery-Blythe

Founded by Dr. Erica Mallery-Blythe, Physicians’ Health Initiative for Radiation and Environment (PHIRE) is an independent association of medical doctors and associated specialists assembled for the purposes of improving education regarding health effects of non-ionizing radiation.

Dr. Mallery-Blythe’s presentation references several U.N. Conventions on the Rights of the Child that are violated, A must-watch presentation about the hazard that RF radiation emitted by wireless technology poses to children, (<https://www.youtube.com/watch?v=sNFdZVeXw7M>)

Article 3 (best interests of a child):

The best interests of a child must be a top priority in all decisions and actions that affect children.

Article 23 (children with a disability):

A child with a disability has the right to live a full and decent life with dignity, and, as far as possible, independence and to play an active part in the community. Governments must do all that they can to support disabled children and their families.

Article 24 (health and services):

Every child has the right to the best possible health. Governments must provide good quality health care, clean water,

nutritious food and a clean environment and education on health and well-being so that children can stay healthy.”

Courtesy GUARDS

RF and Autism

<http://www.clearlightventures.com/blog/2014/07/emf-reduction-for-autism.html>

Clear Light Ventures was founded by Peter Sullivan in 2007. The company's mission is to improve human health and performance by removing widespread environmental health threats. Current projects are focusing on EMF - electromagnetic field safety and awareness and environmental factors in autism.

Biomarkers for Electromagnetic Hypersensitivity

Reliable disease biomarkers characterizing and identifying electrohypersensitivity and multiple chemical sensitivity as two etiopathogenic aspects of a unique pathological disorder.

Belpomme D, Campagnac C, Irigaray P.
<https://www.ncbi.nlm.nih.gov/pubmed/26613326>
http://www.ehs-mcs.org/fichiers/1454070991_Reliable_biomarkers.pdf 21 pages

The Hidden Marginalization of Persons With Environmental Sensitivities - Gibson Pamela Reed. Ecopsychology, Volume: 8 Issue 2 [Key Words: Environmental sensitivities—Multiple chemical sensitivity—Electrical hypersensitivity—Chemical intolerance—Chemical sensitivity—Chemical hypersensitivity.] 7 pages
<http://online.liebertpub.com/doi/pdf/10.1089/eco.2016.0003>; <http://the-labyrinth.com/pamela-reed-gibson-research-papers/>

Conditions That Appear to Increase RF Sensitivity and Potential for Onset of EHS, or are Intensified by RF Exposure:

- Multiple Chemical Sensitivity
- Head Injury
- Previous Electrical Shock
- Methylation Issues
- Lyme
- MS
- Parkinson's
- Cardiac conditions

Medical Testing for EHS

<http://www.citizensforsafetechnology.co/ehs/reliable-biomarkers-have-been-found-in-those-with-ehs-andor-mcs/>

In many of those with EHS and/or MCS, the following biomarkers are out of normal range:

High-sensitivity C reactive protein (hs-CRP)

Low Vitamin D2-D3 (comment: this study showed that low vitamin D is not a cause of EHS but an effect from electromagnetic radiation exposure)

- High Histamine
- High IgE
- High Protein S100B
- High Nitrotyrosine (NTT)
- High Heat shock protein 70 (HSP70)
- High Heat shock protein 27 (HSP27)
- High Anti-O-myelin autoantibodies
- Low Hydroxy-melatonin sulfate (6-OHMS)
- Low 6-OHMS/creatinine
- Abnormal blood flow in brain in temporal lobes

Environmental Damage

The electromagnetic radiation standards used by the Federal Communications Commission (FCC) continue to be based on thermal heating, a criterion now nearly 30 years out of date and inapplicable today.” -The Department of Interior i 2014 letter to FCC on the impact of cell towers on migratory birds.

Source; <https://ehtrust.org/science/bee-butterflies-wildlife-research-electromagnetic-fields-environment/>

Balmori, Alfonso. “Anthropogenic radiofrequency electromagnetic fields as an emerging threat to wildlife orientation.” *Science of The Total Environment*, vol. 518–519, 2015, pp. 58–60 The growth of wireless telecommunication technologies causes increased electrosmog. Radio frequency fields in the MHz range disrupt insect and bird orientation. Radio frequency noise interferes with the primary process of magnetoreception. Existing guidelines do not adequately protect wildlife. Further research in this area is urgent.

Cucurachi, C., et al. “A review of the ecological effects of radiofrequency electromagnetic fields (RF-EMF).” *Environment International*, vol. 51, 2013, pp. 116–40. A Review of 113 studies from original peer-reviewed publications. RF-EMF had a significant effect on birds, insects, other vertebrates, other organisms and plants in 70% of the studies. Development and reproduction of birds and insects are the most strongly affected endpoints.

Balmori, A. “Electrosmog and species conservation.” *Science of the Total Environment*, vol. 496, 2014, pp. 314-6. “Conclusion: At the present time, there are reasonable grounds for believing that microwave radiation constitutes an environmental and health hazard Concerning the exposure to electromagnetic fields, the precautionary principle is needed and should be applied to protect species from environmental non-thermal effects (Zinelis, 2010). Controls must be introduced and technology rendered safe to the environment, since this new ubiquitous and invisible pollutant could deplete the efforts devoted to species conservation.”

Manville, Albert M. “A BRIEFING MEMORANDUM: What We Know, Can Infer, and Don't Yet Know about Impacts from Thermal and Non-thermal Non-ionizing Radiation to Birds and Other Wildlife.” *Wildlife and Habitat Conservation Solutions*, 2014. “In summary, we need to better understand ... how to address these growing and poorly understood radiation impacts to migratory birds, bees, bats, and myriad other wildlife. At present, given industry and agency intransigence ... massive amounts of money being spent to prevent addressing

impacts from non-thermal radiation — not unlike the battles over tobacco and smoking — and a lack of significant, dedicated and reliable funding to advance independent field studies, ... we are left with few options. Currently, other than to proceed using the precautionary approach and keep emissions as low as reasonably achievable, we are at loggerheads in advancing meaningful guidelines, policies and regulations that address non-thermal effects....”

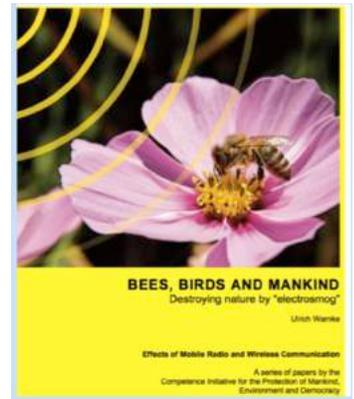
Waldmann-Selsam, C., et al. “Radiofrequency radiation injures trees around mobile phone base stations.” *Science of the Total Environment*, vol. 572, 2016, pp. 554-69.

https://www.researchgate.net/publication/306435017_Radiofrequency_radiation_injures_trees_around_mobile_phone_base_stations

<http://kompetenzinitiative.net/KIT/wp-content/uploads/2016/09/Trees-in-Bamberg-and-Hallstadt-Documentation-2006-2016.pdf>

Sivani S, Sudarsanam D. Impacts of radio-frequency electromagnetic field (RF-EMF) from cell phone towers and wireless devices on biosystem and ecosystem--a review. *Biology and Medicine*. 2012. 4(4):202-216. <http://apps.fcc.gov/ecfs/comment/view?id=6017477145>

http://eareview-examenee.ca/wp-content/uploads/uploaded_files/friesen-margaret-cea-processesrev-emfs-birds-bees-23-dec-2016.pdf



<http://www.naturalscience.org/publications/brochure-bees-birds-mankind-destroying-nature-electrosmog/>

Adverse Health Effects- Recent

Source: <http://www.saferemr.com/2015/04/cell-tower-health-effects.html>;
<http://www.saferemr.com/2017/08/5g-wireless-technology-millimeter-wave.html>

Impact of radiofrequency radiation on DNA damage and antioxidants in peripheral blood lymphocytes of humans residing in the vicinity of mobile phone base stations Zothansiana, Zosangzuali M, Lalramdinpuui M, Jagetia GC. Impact of radiofrequency radiation on DNA damage and antioxidants in peripheral blood lymphocytes of humans residing in the vicinity of mobile phone base stations.

Microwave Radiation vs. Health and Environment, MA MBTA Monopoles, Meters, and More

Electromagn Biol Med. 2017 Aug 4:1-11. doi:

10.1080/15368378.2017.1350584.

<https://www.ncbi.nlm.nih.gov/pubmed/28777669>

Biological effects from exposure to electromagnetic radiation emitted by cell tower base stations and other antenna arrays
Levitt BB, Lai H. Biological effects from exposure to electromagnetic radiation emitted by cell tower base stations and other antenna arrays. *Environmental Reviews*. 18: 369–395 (2010) doi:10.1139 /A10-018.

Review Papers

Chronic Exposure Web Site. Research on mobile base stations and their impact on health.

<http://www.chronicexposure.org/basestations.html>

Levitt B, Lai H. Biological effects from exposure to electromagnetic radiation emitted by cell tower base stations and other antenna arrays. *Environ. Rev.* 18: 369–395 (2010). doi:10.1139/A10-018.

<http://www.nrcresearchpress.com/doi/pdfplus/10.1139/A10-018?src=recsys> Open Access Paper:

<http://www.nrcresearchpress.com/doi/pdfplus/10.1139/A10-018?src=recsys>

Yakymenko I, Sidorik E. Risks of carcinogenesis from electromagnetic radiation of mobile telephony devices. *Exp Oncol.* 2010 Jul;32(2):54-

60. <http://www.ncbi.nlm.nih.gov/pubmed/20693976>

Yakymenko I, Sidorik E, Kyrylenko S, Chekhun V. Long-term exposure to microwave radiation provokes cancer growth: evidences from radars and mobile communication systems. *Exp Oncol.* 2011 Jun;33(2):62-

70. <http://www.ncbi.nlm.nih.gov/pubmed/21716201>

Yakymenko I., Tsybulin O., Sidorik E. Henshel D., Krylenko O., Krylenko S. Oxidative mechanisms of biologic activity of low-intensity radiofrequency radiation. *Electromagnetic Biology and Medicine.* 2015 Jul 7:1-

16. <http://www.ncbi.nlm.nih.gov/pubmed/26151230>

Recent Studies (Updated 8/7/2017)

Al-Quzwini O, Al-Tae H, Al-Shaikh S. Male fertility and its association with occupational and mobile phone towers hazards: An analytic study. *Middle East Fertility Society Journal.* Avail. online Apr 8, 2016. <http://bit.ly/1SRUWWs>

Baliatsas C, van Kamp I, Bolte J, Kelfkens G, van Dijk C, Spreeuwenberg P, Hooiveld M, Lebre E, Yzermans J. Clinically defined non-specific symptoms in the vicinity of mobile phone base stations: A retrospective before-after study. *Sci Total Environ.* 2016 Sep 15;565:714-

20. <http://www.ncbi.nlm.nih.gov/pubmed/27219506>

Bienkowski P, Zubrzak B. Electromagnetic fields from mobile phone base station - variability analysis. *Electromagn Biol Med.* 2015 Sep;34(3):257-61. <http://1.usa.gov/1TEXygr>

Black B, Granja-Vazquez R, Johnston BR, Jones E, Romero-Ortega M (2016) Anthropogenic Radio-Frequency Electromagnetic Fields Elicit Neuropathic Pain in an

Amputation Model. *PLoS ONE* 11(1):

e0144268. <http://bit.ly/1R7g4vN>

Cammaerts MC, Johansson O. Effect of man-made electromagnetic fields on common Brassicaceae *Lepidium sativum* (cress d'Alinois) seed germination: a preliminary replication study. *Phyton, International Journal of Experimental Botany* 2015; 84: 132-137. <http://bit.ly/EMRcress>

Eskander EF, Estefan SF, Abd-Rabou AA. How does long term exposure to base stations and mobile phones affect human hormone profiles? *Clinical Biochemistry*, Volume 45, Issues 1–2. 2012, Pages 157-

161. <http://www.ncbi.nlm.nih.gov/pubmed/22138021>

Gandhi G, Kaur G, Nisar U. A cross-sectional case control study on genetic damage in individuals residing in the vicinity of a mobile phone base station. *Electromagn Biol Med.* 2014 9:1-11. <http://www.ncbi.nlm.nih.gov/pubmed/25006864>

Gulati S, Yadav A, Kumar N, Kanupriya, Aggarwal NK, Kumar R, Gupta R. Effect of GSTM1 and GSTT1 Polymorphisms on Genetic Damage in Humans Populations Exposed to Radiation From Mobile Towers. *Arch Environ Contam Toxicol.* 2015 Aug 5. <http://www.ncbi.nlm.nih.gov/pubmed/26238667>

Hardell L, Koppel T, Carlberg M, Ahonen M, Hedendahl L. Radiofrequency radiation at Stockholm Central Railway Station in Sweden and some medical aspects on public exposure to RF fields. *International Journal of Oncology.* Published online Aug 12, 2016. Open access: <http://bit.ly/2aI93Ut>

Marinescu I, Poparlan C. Assessment of GSM HF-Radiation impact levels within the residential area of Craiova (Romania) city. *Procedia Environmental Sciences* 32:177-183. 2016. <http://bit.ly/28Q6EEy>

Martens AL, Slottje P, Timmermans DR, Kromhout H, Reedijk M, Vermeulen RC, Smid T. Modeled and Perceived Exposure to Radio-Frequency Electromagnetic Fields From Mobile-Phone Base Stations and the Development of Symptoms Over Time in a General Population Cohort. *Am J Epidemiol.* 2017 Apr 7:1-10. <https://www.ncbi.nlm.nih.gov/pubmed/28398549>

Meo SA, Alsubaie Y, Almubarak Z, Almutawa H, AlQasem Y, Hasanato RM. Association of Exposure to Radio-Frequency Electromagnetic Field Radiation (RF-EMFR) Generated by Mobile Phone Base Stations with Glycated Hemoglobin (HbA1c) and Risk of Type 2 Diabetes Mellitus. *Int J Environ Res Public Health.* 2015 Nov 13;12(11):14519-14528. <http://www.mdpi.com/1660-4601/12/11/14519>

Sagar S, Dongus S, Schoeni A, Roser K, Eeftens M, Struchen B, Foerster M, Meier N, Adem S, Rösli M. Radiofrequency electromagnetic field exposure in everyday microenvironments in Europe: A systematic literature review. *J Expo Sci Environ Epidemiol.* 2017 Aug 2. <https://www.ncbi.nlm.nih.gov/pubmed/28766560>

Singh K, Nagaraj A, Yousuf A, Ganta S, Pareek S, Vishnani P. Effect of electromagnetic radiations from mobile phone base stations on general health and salivary function. *J Int Soc Prevent Communit Dent* 2016;6:54-9. <http://bit.ly/1USYGNs>

HaltMAsmartmeters.org, NoMassSmartMeters.org, WorcesterOptsOut.org, www.safehelpsyou.org,

Writing Electromagnetic & Environmental Legislation: patreon.com/heal, [Wireless Safety Awareness New England](http://WirelessSafetyAwareness.org),

[Piti Theatre Company www.ptco.org/tour](http://PitiTheatreCompany.org), stopsmartmetersMASS@gmail.com

Microwave Radiation vs. Health and Environment, MA MBTA Monopoles, Meters, and More

Zothansiana, Zosangzuali M, Lalramdinpuii M, Jagetia GC.
Impact of radiofrequency radiation on DNA damage and
antioxidants in peripheral blood lymphocytes of humans
residing in the vicinity of mobile phone base stations.
Electromagn Biol Med. 2017 Aug 4:1-
11. <https://www.ncbi.nlm.nih.gov/pubmed/28777669>

Resources

Campanelli & Associates, P.C. Cell tower
lawyers. <http://www.anticelltowerlawyers.com/>

Center for Municipal Solutions. Excellent resource re:
regulation of cell towers &
wireless facilities. <http://bit.ly/1GX4mPY>

League of Minnesota Cities. Cell Towers, Small Cell
Technologies & Distributed Antenna Systems. Nov 4,
2016. <http://bit.ly/2k5PQz0>

San Francisco Neighborhood Antenna-Free Union (SNAFU)
<http://www.antennafreeunion.org/neighborhoodaction.htm>

Historical

US Navy 1971 Bibliography of Reported Biological Phenomena
(‘Effects’) and Clinical Manifestations attributed to Microwave
and Radio-Frequency Radiation.”

http://www.magdahavas.com/wordpress/wp-content/uploads/2010/06/Navy_Radiowave_Brief.pdf

This document
first appeared on October 4, 1971, with over 2,000 adverse
effects.

<http://www.magdahavas.com/pick-of-the-week-18-effect-of-microwaves-on-the-central-nervous-system-1965-german-translation/>

Bergman, W. 1965. The effect of Microwaves on the Central
Nervous System. Translation from the German for Research
and Scientific Laboratory, Ford Motor Company by the
Technical Library Research Service. 82 pp.

Recent Military-US Book

Microwave Effects on DNA and Proteins

Chapter 4 (pp. 97-158) is about health effects
resulting from interaction of wireless radiation
exposure with other environmental agents by
Kostoff, R.N. and Clifford G.Y. Lau.

2017. “Modified health effects of non-ionizing
electromagnetic radiation combined with other
agents reported in the biomedical literature.”

Government standards are based on the effect of
non-ionizing radiation acting alone. The effects of
the radiation in combination with other agents on

biological systems would be much more severe
than if it was acting alone (p.98)

Medical use of non-ionizing radiation at non-
thermal levels clearly demonstrate that biological
effects occur below government thermal
thresholds]

“Non-ionizing radiation can create transient pores in
the cell membrane. This can be used to assist in
delivering chemotherapy agents into the cell,
however, it can also allow an infectious virus to
enter the central nervous system.” (p. 111)

It summarizes harmful effects – blood brain barrier
injury, neurodegeneration, inhibition of learning and
memory, DNA damage in brain, contribution to
autism (p. 102)

Vitamin C, melatonin, NAC, vitamin E, zinc etc. can
repair some of the damage by RF radiation (pp.
126-127)

The interactions between non-ionizing radiation and
the environmental agent occur only in specific
windows for specific combinations of multiple
variables (p. 130)

p. 143, book explains why research showing
adverse effects is underreported (government and
industry influences).

Also that one’s genetics or preexisting disease is a
factor in one’s susceptibility to EMR’s effects on
promoting disease. (p.112) (this can explain why
some people experience adverse health effects
around wireless radiation while others don’t)

The authors are both research scientists, formerly
employed with the Office of Naval Research.



What We Want: Massachusetts On March 25, 2017, the Boston Globe reported, “The vast majority of drug cases potentially tainted by former state **chemist Annie Dookhan** will be vacated by mid-April.” The Washington Post reported: “The injustice orchestrated by lab chemist Annie Dookhan was first revealed five years ago, after she had been working for the Massachusetts state drug lab for nearly a decade to help prosecutors, in her words, get drug dealers ‘off the streets.’ In the year that followed, authorities would call into question the convictions of tens of thousands of drug cases handled by Dookhan in the Massachusetts state drug lab.”

We believe that the relationship of the MA DPU, utilities, the wireless industry, and Gradient Corporation’s brand of science is a breach of public trust, and that the recklessness regarding the health and safety risks for major wireless and utility infrastructure projects must be addressed. We want an end to the use of tobacco science consultancies.

We would like the Governor to address irregularities in the grid modernization hearings at the MA DPU and the Worcester smart meter pilot.

Massachusetts is a state with abundant technology and science resources. We would like Massachusetts to take the guide the nation into a necessary course correction regarding wireless technology.

What We Want: Federal Action

Prior to investment in additional RF-emitting infrastructure in the Commonwealth, including

- (a) MBTA monopoles
- (b) wireless utility meters and infrastructure financed by ratepayers
- (c) untested unmonitored 5G “small cells”, and
- (d) prior to retirement of the landline phone system,

We ask that the MBTA, DOT, Governor Baker, the Attorney General, and Legislature

(1) require that testimony submitted to the Federal Communications Commission in 2013, and any additional health testimony and research concerning the inadequacy of RF exposure guidelines in the U.S. be subjected to multi-agency and public formal review

(2) for the ADA to address mounting human rights violations for EHS/MCS (including emergency housing crisis precipitated by utility meters and infrastructure)

If outdated U.S. FCC assumptions are not subjected to formal review, assignment of binding liability for health and environmental impacts is warranted.

If the US fails to address emerging RF issues and the inadequacy of TCA 1996, we ask that MA political leadership call for international intervention via the UN Rights of the Child and other relevant resources.

Pro-Active Protections for the EHS Population and for Those Who May Be Living Near Antennas in the Future

MA residents experiencing adverse impacts due to RF exposure are in a very vulnerable situation. Some are living in compromised housing situations with no protection from neighboring sources of RF with deteriorating health. Some have had to move, others are in search of a protective white zone similar to those established in some other countries. Others have invested tremendous amounts of money attempting to shield their homes to maintain their health.

Sweden recognizes EHS as a functional impairment and provides protections including protected housing and/or shielding of residences.

1999 Swedish report, Bornehag C-G, Hamnerius Y, Hult M, Johansson O, Norrby C, Åberg U, "Hälsomässig och teknisk utvärdering av fyra elsanerade bostäder i kvarteret Haubitsen, Uppsala" ("Health evaluations and technical measurements in four apartments, in block Haubitsen, Uppsala, with measures to reduce electrical and magnetic fields", in Swedish with an English summary), Enheten för Experimentell Dermatologi, Karolinska Institutet, Stockholm, Rapport nr. 4, 1999, ISSN 1400-6111

Should the MBTA or utility place wireless infrastructure on or near residential areas, schools, hospitals, etc., health protection should be incorporated into the program design and costs, rather than cost-shifted to the

individual or the social sector in increased health care costs.

Innocenzo and To Bee or Not to Bee - MA's EMF-aware Piti Theatre Company

Acclaimed by educators, parents and activists in the U.S. and Europe, *Innocenzo* is a comedic, poetic, musical touring performance for all ages about a clown trying to live in the 21st century. It is the first professional touring theatre performance to address electro-sensitivity and digital addiction and does so in a way that inspires, empowers and amuses children and adults. The title character moves to a city in Switzerland only to fall sick after becoming enamored of and emulating his neighbors' digital devices. The story is inspired by the experience of its' co-creator Godeliève Richard. You can read Godeliève's story, originally published in the Swiss magazine *Femina*.

<http://mieuxprevenir.blogspot.ch/2014/03/switzerland-waves-make-me-ill-testimony.html>
Innocenzo is named in honor of an Italian businessman who developed a brain tumor. The Italian court ruled that the brain tumor was caused by cellphone use required by his employer. Italy was also the site of the Vatican Leukemia lawsuit.

7 RF-related Massachusetts Legislative Bills

<https://sites.google.com/site/understandingemfs/ma-emf-bills>

<http://www.berklitchfieldenviro.org/issues/blecoppoosesdeepsdr/> **BLEC
Opposes DEEP's Draft Comprehensive
Energy Strategy on Smart Grid Technology,
December 13, 2012**

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Be on the right side of history.