

December 7, 2014

Michigan House of Representatives Rm 519, Anderson House Office Building Lansing, Michigan

Att: The Honorable Representatives

Re: Oversight in Smart Meter Program

Dear Honorable Representatives:

I am submitting information with a synopsis covering Smart Meters denoting concerns of risk and safety. The submitted information pertains to the oversight, health, fires, buildings/infrastructure corrosion, ecocide, economy, liability while not addressing Michigan energy objectives or climate change.

I am submitting this information and asked that it is entered into record.

# Respectfully,

Curtis Bennett
Chief Science Officer
Interprovincial Journeyman Electrician(Red Seal)
Building Engineering Technologist
Adjunct Professor for Integrative Health Forum & Global Education Development Institute
Thermal Radiation Consultant for 35 Years/
www.thermoguy.com

curtis@thermoguy.com Ph: 604-239-2694

# Dear Honorable Representatives:

As a Chief Science Officer and First Response Consultant at molecular levels, we consult at Operation Levels providing sight of objectives for a wide scope of industry. Our work over 35 years for a wide scope of industries from oil, gas, energy, mines, mills, fire services, manufacturing, governments as well as insurers has saved billions of dollars, lives and lost production.

My background includes nationally recognized government credentials as an Interprovincial Journeyman Electrician(Red Seal). While Electrical Engineers design electrical systems, they are not qualified to install or maintain. Qualified electricians design, install, maintain and troubleshoot electrical systems. As it pertains to DTE, electricians design and install the electrical energy they sell.

As a Building Construction Engineering Technologist, my background pertains to all aspects of construction from contracts to completion. That includes designing energy systems to accommodate the energy consumption of the building development that utilities provide energy for.

As Thermal Radiation Consultants at the atomic and molecular level, we image energy allowing professionals to see temperature where otherwise they are blind. This level of thermal imaging is not to be confused with others. We employ the most advanced temperature applications in the world without exception and are lectured at the highest accredited level of approved medical education.

Continuing Medical Education Credits are required by medical professionals for ongoing medical licensing. Lawyers as another example are required to get ongoing education credits or they can be suspended from practising law. The point for the committee is that the dangers of smart meters as applied has been lectured for CME credits and applicable to approved US medical education.

The internationally accredited medical education programs put on by the Integrative Health Forum and educational partners is an advanced medical program showing energy or temperature at the molecular level. Inflammation, cancers, physiological changes and difficult diagnosis can be seen. Energy use and waste is shown because of the related toxic emissions. It was as Adjunct Faculty we were required to investigate why many people and professionals were complaining about wireless exposure. That is where the oversight was found in exposure codes admitting the causal link between the RF EMFs and adverse health effects was missing.

Wireless exposure codes refer to non thermal effects not being understood? They don't exist, all matter above Absolute Zero is thermal. Absolute Zero is -273 deg. C or -459 deg. F. <a href="http://en.wikipedia.org/wiki/Thermal\_radiation">http://en.wikipedia.org/wiki/Thermal\_radiation</a>

"Thermal radiation is <u>electromagnetic radiation</u> generated by the <u>thermal motion of charged</u> <u>particles</u> in <u>matter</u>. All matter with <u>a temperature</u> greater than <u>absolute zero</u> emits thermal radiation. When the temperature of the body is greater than absolute zero, interatomic collisions cause the <u>kinetic</u> <u>energy</u> of the atoms or molecules to change."

The Government of Canada's Health Canada uses Safety Code 6 for the limits of human exposure to RF EMFs. The same science standards are used by the FCC and other international governing bodies. <a href="http://www.thermoguy.com/pdfs/Safety">http://www.thermoguy.com/pdfs/Safety</a> Code 6.pdf

The strength of exposure codes in protecting the public is on page 9, paragraph 3 of Safety Code 6. "The predominant health effect to be avoided is the unintentional stimulation of tissue as is the heat effect" Intentional stimulation of tissue is medical imaging where people are put in an intended position of use and other parts of their body protected or workers in an RF EMF environments for short periods of time.

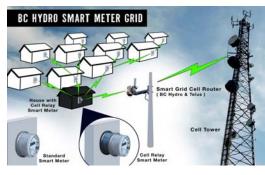
As building and electrical professionals, 100% of our work is codes and standards. We do not have building or electrical codes admitting science is missing. It was alarming to read in Safety Code 6 that causation linking the RF EMFs to adverse health effects was missing and that code would be adapted when peer reviewed science was reported substantiating harm.

As a result of missing science, Health Canada, the FCC and other governing bodies have adopted the Specific Absorption Rate for the limits of human exposure. Here is a picture of a Sam Phantom Model used for testing and the science DTE is using to support safety.

All cellphone manufactures have to submit their phones for testing. The red arrow highlights the base of the antenna where a localized area of the skull is thought to be heated. The white arrow highlights the temperature probe in the hole in the test model's head where liquid is poured.

The same test is adopted for Wi-Fi and Smart Meters except **24/7 exposure** has been deemed safe because the laptop and meter are not held against the head like a cell phone.

Health Canada's radiation professionals confirmed that cell phone antennas, Wi-Fi Routers or wireless smart meter grid were not considered in the SAR test. Neither was any bio/electrical/chemical information associated with a human. The SAR only considered the end use device on a wireless electrical circuit.



Although wireless grids can be different, here is a picture of BC Hydro's Smart Grid. Smart Meters will not work without the grid for connection.

The diagram shows the required grid and how people, buildings, infrastructure as well as ecosystems are hit by the RF EMFs. The SAR leaving the grid out of the equation is like leaving a gun out of a shooting.

There are real reasons we wire the world. Wired circuits are insulated known conductors and wireless circuits require great consideration because there is no insulation and everything hit by these RF EMFs will be inside the wireless circuit.

September 14, 2010 causation and biological plausibility linking the frequencies to adverse health effects was reported to provinces as well as Health Canada as jurisdictional authorities.

October 26, 2010 causation and biological plausibility was presented to Canadian Parliament's Standing Committee on Health by Canadian government certified electrical professionals at their request. Although electricity isn't a singular opinion, I was the reporting professional.

January, 2011 causation and biological plausibility linking the frequencies to adverse health effects was lectured in medical education for CME credits at the University of Central Florida. Here is a link to health education administration's letter on the accreditation and includes myself as adjunct faculty. <a href="http://www.thermoguy.com/pdfs/Integrative Health Forum on Medical Education Including Wireless Exposure.pdf">http://www.thermoguy.com/pdfs/Integrative Health Forum on Medical Education Including Wireless Exposure.pdf</a>

During recent utility applications for wireless smart meters, I cross examined FortisBC utility experts at the BC Utilities Commission oral hearings about smart meter frequencies as well as the 2<sup>nd</sup> antenna inside the meter for Wi-Fi RF EMFs planned for inside each building.

FortisBC hired Exponent Inc to represent their Exponent Report on wireless safety. Engineer Mark Warren confirmed blanket coverage of 17,000 sq. Kms or 6564 sq miles to communicate with meters. Dr. Yakov Scholnikov confirmed frequency incompatibility with humans as well as the high speed oscillations of the frequencies 1.8 billion times per second for smart meters and 4.8 billion times per second for Wi-Fi at 2.4 GHz.

Dr. William Bailey confirmed the voltages of cells, the many frequencies of the brain and body as well as the fact they were not included in their report on risk assessment or included in Safety Code 6. Dr. Bailey further confirmed frequencies triggered nerves in labs and that the nervous, hormonal and immune systems work together. (At lower frequencies, Safety Code 6 refers to electromagnetically inducing currents within biological tissue that can lead to nerve and muscle depolarization. Page 9, 3<sup>rd</sup> paragraph)

#### **Health Effects**

Electro Hypersensitive people isn't the correct terminology. As per the utility coverage area above several cities will be blanketed with RF EMFs for smart meters and everyone without exception is in the EMF. Page 7, second paragraph of Safety Code 6 states "The rate and distribution of RF energy absorption depends strongly on the frequency, intensity and orientation of the incident fields as well as the body size and its constitutive properties (dielectric constant and conductivity)." Just the orientation to the field can make a difference but people aren't just sensitive, they are being subtly electrocuted. Smart Meter frequencies hitting people from head to toe at all different angles requires impossible calculations by engineers because every movement within the EMF changes the orientation to the EMFs.

It was during the FortisBC application for wireless smart meters we found the BC Legislature "entrusted" BC Hydro as the bigger utility to install meters and the required smart grid. The utility was allowed to bypass regulatory process. No sciences, academia, medicine including medical education, insurers, engineers, architects, municipalities, lawyers, etc were consulted or informed. The same applies to the State of Michigan not being informed as to blanket radiation. The scope of medical diagnosis has changed but medicine was not informed or consulted.

These EMFs will expand and collapse **inside the body billions of times per measurable second**, 3600 times per hour, 86,400 every 24 hours and 2,592,000 per month. The peer reviewed science is called electricity.

Smart Meters contain a second RF EMF antenna for Wi-Fi energy devices inside the buildings. The number of devices is unknown as well as their orientation to a pacemaker, baby, pregnant mom, elderly. The RF EMFs associated with Wi-Fi at 2.4 GHz will expand and collapse inside bodies, walls, roofs 4.8 billion times per second. That induces currents as well as the high speed polarization 180 degrees 4.8 billion times per second will rip anything apart and the peer reviewed science is called electricity. SAR admits inducing currents into people and are changing cellular voltages.

Pacemaker recipients are told to stay out of an electromagnetic field, smart meter programs will take the EMF to the vulnerable patient's home. <a href="http://thermoguy.com/emf-pacemaker/">http://thermoguy.com/emf-pacemaker/</a>

### **Buildings and Infrastructure**

RF EMFs going through buildings and infrastructure brings unrealized problems. As an example in Canada, the RF EMF bombardment will cause Building Code compromises and liability. Building Code rule 4.1.3.6.(Vibration) is specific to building design and RF EMF interacting with atoms and molecules of building material as well as fire separations will effectively shake the building. The higher the power density, the more aggressive the EMF interactions will be. Here is a report example for industry and their insurer on a frequency problem at 60 Hz. <a href="http://thermoguy.com/wp-content/uploads/Electrical-Frequency-Problem-in-Lumber-Mill.pdf">http://thermoguy.com/wp-content/uploads/Electrical-Frequency-Problem-in-Lumber-Mill.pdf</a>

Engineers are insured for errors or omissions, they were not consulted or informed. Once buildings or fire separations reach a state of degradation, occupancy will not be allowed.

MRI Chambers are designed to keep RF EMFs out, regular construction is not.

#### **Smart Meter Installation and Fires**

Mass installation of meters on meter bases requires lots of licensed electrical professionals. Where electrical equipment is maintained regularly, some meters have been on buildings for decades and the meter base can be extremely fragile. Fragile components and loose connections make for a dangerous environment. Fires will not necessarily happen right away, seasonal electrical demands could cause fire.

Utilities employing contractors or technicians have created further problems. BC Hydro as one example installed 1.9 million meters and now they require the re-inspection of all of the meter bases by qualified electrical professionals. <a href="http://thermoguy.com/wp-content/uploads/Smart-Meter-Fires-Installation.pdf">http://thermoguy.com/wp-content/uploads/Smart-Meter-Fires-Installation.pdf</a>
<a href="Insurers">Insurers</a>, municipalities and lawmakers were not informed or consulted on people working on live electrical systems they are not qualified to touch.

# **Ecocide and Economy**

Admitted blanket radiation of coverage areas will kill pollinators, trees, forests, watersheds and everything in it. There is nothing electrically compatible with these RF EMFs as applied except the meter or wireless devices.

FortisBC was asked under cross examination by me in the utility application on costs of wired versus wireless how much the blanket radiation and destruction of cities and over 6400 sq. Miles is factored into their costs. The BCUC did not make FortisBC answer the questions, even at our further insistence. FortisBC experts from the Exponent Group referred to bees and pollinators adapting to RF EMFs even though Scholnikov confirmed 900 MHz going into the ground over 39 inches.

FortisBC as one utility is electromagnetically radiating over 6400 sq. Miles and everything in it. They are using the SAR to bypass municipal authority when it has no applicability. The SAR is human exposure code with critically important science missing. Had early explorers used such science, they would have fallen off the edge of the planet.

Pacemaker recipients are told to stay out of an EMF, the blanket coverage of areas including schools take the EMF to the recipients. <a href="http://thermoguy.com/wp-content/uploads/EMF\_Pacemaker1.pdf">http://thermoguy.com/wp-content/uploads/EMF\_Pacemaker1.pdf</a>

### **Energy & Climate Change**

Our electrical grids are challenged and removing the electrical waste off the grid reduces emissions immediately. The problem is we are reacting to symptoms with massive energy waste. It couldn't be seen before even though all the laws were in place to address it. At the end of the day, buildings and their energy use is signed off as compliant with building codes.

Weather is the basic interaction of cold and warm air with water vapor. Generate heat and it changes climate. Here is an example of what we missed in the infrared spectrum. This evidence is part of part of utility transcripts. Note all of it tied to existing code rules: <a href="http://www.bcuc.com/Documents/Proceedings/2012/DOC\_32604\_C19-6\_WKCC-Submission-RDCK-Nelson-Creston\_Suspension.pdf">http://www.bcuc.com/Documents/Proceedings/2012/DOC\_32604\_C19-6\_WKCC-Submission-RDCK-Nelson-Creston\_Suspension.pdf</a>

As you see by the file above solar EMFs play a significant role in energy waste reacting to symptoms. That can be addressed with shade and low-e finishes on the exterior of the building. That would knock the electrical load off the grid immediately and stop the super heating of the atmosphere that changes weather. The UN and US are worried about a few degree rise in atmospheric temperatures. Last Sunday it was 8.6 degrees F reported at the weather station, solar EMFs had dark buildings 122 degrees F by 11 AM. Global warming without emissions. Solar EMFs are doing the same in Michigan. Buildings imaged in 7 provinces and 26 states produced the same results with solar interaction.

### Liability

Citizens have real reason for their personal health as well as their investment. EMFs can be harmless depending what they hit. Constituents are having high speed RF EMFs blasted across their property line and going through their bodies and buildings. DTE and others will have a real liability. Constituents are effectively being tased 24/7 with a dosage of electromagnetic radiation. If represented properly installers of the meters should be arrested for a real assault and I say that with the required humility. If I endangered apprentices or others in my professional capacity, I am liable.

Exposure codes admit the purpose of the code is to protect the public but also admit to attempting to reduce induced currents in the body. That is how we are electrocuted, with currents going through our bodies.

Ohm's Law is Volts = amps X resistance. Inducing currents increases cellular voltages where biologists state a change in cellular voltage of .2 millionths of a volt changes white blood cells. What does neurological, hormonal and immune interference mean for a developing fetus getting 24/7 exposure in mom's belly?

The Specific Absorption Rate is an admission of harm and isn't applicable science. RF EMF deployment with flawed science is incredibly dangerous, it changes the scope of every science except science doesn't know it is happening yet. RF EMFs as applied is very complex technically and I make myself available for any questions or challenges. This has to be addressed as the real damage is measurable by the second.

The smart meter program as applied will not address climate change or energy waste and is not saving money. Michigan can address their energy deficiencies, create jobs and knock the load off the grid immediately without re-inventing the wheel. That energy couldn't be seen before. DTE and other utilities are not representing the blanket electromagnetic radiation heats the atmosphere with the high speed vibration. FortisBC as an example will create a 6400 sq. Mile heat sink.

I look forward to answering questions from all sides to substantiate the science. It was the oversight(error or omission) in exposure codes that Michigan is looking for and was reported.

Sincerely,

Curtis Bennett
Chief Science Officer
Interprovincial Journeyman Electrician(Red Seal)
Building Engineering Technologist
Adjunct Professor for Integrative Health Forum & Global Education Development Institute
Thermal Radiation Consultant for 35 Years/
www.thermoguy.com

curtis@thermoguy.com

Ph: 604-239-2694