

STATE OF WISCONSIN

BILL NUMBER:

SECTION 1. Title of Bill:

**The Wisconsin Utility Consumers Health, Safety and Privacy Protection Act**

An act to amend the public service law, in relation to protecting the health, safety and privacy rights of all residents and utility consumers in the State of Wisconsin.

SECTION 2. Definitions:

TRANSMITTING SMART UTILITY METER:

*Means any metering device with electronic components and/or any electric or battery operated meter that is capable of measuring, recording, and sending data from a utility consumer or member to a public utility, municipality, or cooperative association in a manner utilizing one-way communication, two-way communication, or a combination of one-way and two-way communication with any entity or device. (Common names include, but are not limited to, AMR, ERT, and AMI.)*

MECHANICAL ANALOG UTILITY METER:

*Means a purely mechanical device, using no electronic components, no switch mode power supply, no transmitter, no antenna, and no radio frequency emissions.*

TROJAN UTILITY METER:

*Means a transmitting smart utility meter concealed under a mechanical analog utility meter face.*

UTILITY PROVIDER:

*Means an electric, gas, or water company, whether owned privately or publicly, or by another utility provider or other third party contractors/sub-contractors for such purpose.*

UTILITY CONSUMER:

*Means utility ratepayers and non-ratepayer occupants, including but not limited to renters and any other consumer of utility services.*

SECTION 3. PURPOSE:

- A. Provide all utility consumers the right to retain their mechanical analog utility meters at no cost.
- B. Require utility providers to replace installed electronic and/or transmitting smart utility meter(s) with mechanical analog utility meter(s), at utility consumer's request, within one week. Each utility provider will adhere to a "no questions asked," no fee, and no time limits imposed procedure.
- C. Place an immediate moratorium on all transmitting smart utility meter installation pending:

1. The results of a Wisconsin Department of Health Services investigation of the health effects being reported after transmitting smart utility meter installation and the implications for public health and safety. Health and safety implications of installation of transmitting smart utility meters adjacent to each other must be included. Assistance with this investigation shall be requested from the Centers for Disease Control (CDC), including investigating nationwide reports of adverse health effects after the installation of transmitting smart utility meters.
  - a. Require utility providers and Wisconsin Public Service Commission to keep and make readily available complete records of all transmitting smart utility meter related health complaints to aid in the Wisconsin Department of Health Services investigation.
2. Investigation of the security risks of transmitting smart utility meters, their ramifications for utility system integrity, and feasibility of protecting utility system security and integrity with a transmitting smart utility meter system in place.
3. Development of rules regarding the use of ratepayer data collected via transmitting smart utility meters.
4. Investigation of the health and safety implications of the undisclosed conducted microwave frequencies on building wiring originating in the transmitting smart utility meter and the undisclosed conducted high frequency voltage transients, also named “dirty electricity,” caused by transmitting smart utility meter’s electronic components.<sup>1,2</sup>
5. A cost-benefit analysis of allowing installation of transmitting smart utility meters incorporating all the above factors and the cost of continuously replacing transmitting smart utility meters to keep pace with technological advances, e.g. replacing all the one-way transmitting smart utility meters presently installed in Wisconsin with advanced two-way transmitting smart utility meters.

D. Require utility providers to give a 60-day written notification to utility consumers, to be drafted by Wisconsin officials, before the installation of a transmitting smart utility meter or meters. Included in this notification will be a notice of the World Health Organization’s Carcinogen designation (class 2B “possible” human carcinogen, at this time)<sup>3</sup> for radiofrequency radiation emissions (which transmitting smart utility meters use to communicate) and the security and privacy risks<sup>4,5</sup> associated with the use of transmitting smart utility meters. Many of these are identified in a presentation by Diane Ramthun (Office of General Counsel, Public Service Commission of Wisconsin) “Regulatory Aspects of Smart Metering: United States Experience”.<sup>6</sup>

E. Establish a process requiring utility providers to obtain written permission prior to replacing a mechanical analog utility meter with a transmitting smart utility meter.

F. Prohibit utility providers from penalizing or charging utility consumers for taking any of the actions or alternative actions in sub-section 3A or 3B. Prohibited actions include but are not limited to interrupting or threatening to interrupt utility consumers’ service or any other form of intimidation.

G. Prohibit the misleading use of Trojan utility meters by utility providers by requiring utilities installing Trojan utility meters to comply with all notifications, permission and removal requirements for transmitting smart utility meters.

H. Provide for the Wisconsin legislature to hold hearings and investigate the following:

1. The significant number of Wisconsin residents who are reporting adverse health symptoms after utility providers have installed transmitting smart utility meters.<sup>7</sup>
2. Whether adequate laboratory and in-situ testing methods were employed by utility providers, the Wisconsin Public Service Commission and manufacturers of transmitting smart utility meters to protect public health, privacy and utility system security from cyber attacks and to ensure prevention of fire risks.
3. The extent of the intrusion on utility consumer privacy by utility providers who, by using transmitting smart utility meters, have the capability to collect and use detailed personal utility usage data from within all buildings for which they are the utility providers.
  - a. Determine the purpose for collecting utility consumer usage data, including data from smart appliances, and whether the utility providers may sell that data, either individually or in aggregate.
  - b. Investigate whether adequate precautions are in place to protect personal utility usage data at the transmitting smart utility meter and during transmission to the utility provider.
  - c. Determine where and how the utility provider intends to store and secure that data and for how long they intend to keep the data.
  - d. Determine whether additional regulation of utility providers' data collection, through the use of transmitting smart utility meters is necessary. Personal and detailed utility usage data of utility consumers has become a commodity for sale or distribution to third parties.
  - e. Determine whether additional laws are needed to protect ratepayer privacy and suggest the scope of such laws.
  - f. Ensure that customers have full access to all their data.
4. Whether deployment of transmitting smart utility meters increases the vulnerability of basic utility systems to partial or complete failure due to hacking or other technological failures.

### SECTION 3. JUSTIFICATION:

Thousands of complaints of serious health effects occurring with the use of a variety of transmitting smart utility meters and associated systems support taking the precautionary action of conducting inquiries into and investigations of the health implications of installation prior to moving forward. Since transmitting smart utility meters are being installed nationally, the CDC must be involved in the investigation so that citizens of Wisconsin can benefit from the reports of adverse health effects from other states.

Transmitting smart utility meters employ technology that relies on the usage of continuous radio frequency (microwave) electromagnetic pulses to track a utility consumer's utility consumption remotely. Thousands of papers show the potential for biological effects, many detrimental, at radiation levels far below those emitted by transmitting smart utility meters.<sup>8</sup>

Additionally, serious questions about utility system security and integrity need to be addressed prior to deploying further transmitting smart utility meters and associated systems on a statewide basis in this day of omnipresent hackers and hostile nations. Serious questions about protecting the privacy of ratepayers need to be resolved given the detailed data that can be obtained using transmitting smart utility meters. In some instances, ratepayer usage data collected by utility providers from ratepayers through transmitting smart utility meters may be sold by utility providers to third party interests for a profit without the knowledge or consent of ratepayers. Policy regarding protection and use of this data need to be formally reviewed prior to further deployment of transmitting smart utility meters.

Ratepayers have voiced their concerns about transmitting smart utility meters for several reasons. First, ratepayers object to exposure to radiofrequency electromagnetic radiation emissions from these meters, including "dirty" electricity created by the switch mode power supply. Both "dirty" electricity and the microwave radiation that transmitting smart meters use to communicate are understood to have adverse health effects. Second, ratepayers object to the invasion of privacy that arises from the collection of detailed utility consumption data that these meters facilitate. Third, ratepayers object to the potential these meters create for "hacking" of utility systems. For all of these reasons, ratepayers desire a moratorium on transmitting smart meter installation and a meter choice program, pursuant to which they can choose to retain their analog utility meter, or have it reinstalled, and instead have their utility consumption measured by mechanical analog utility meters.

In response to ratepayers' concerns in other states, over the past two years the Public Utility Commissions of California, Vermont, Maine, Hawaii, Maryland and Nevada have all issued orders preserving ratepayer's right to utility meter choice. Legislation is pending in several more states to protect ratepayer's rights and some municipalities have banned utility providers from installing transmitting smart utility meters.

Ratepayers' concerns about transmitting smart utility meters can be addressed by adopting a "no questions asked" no fee utility meter choice program to preserve ratepayer's rights and protect them from forced installation of such meters by utility providers. The utility consumption of such ratepayers will thereafter be measured with mechanical analog utility meters. Wisconsin PSC code already provides for customers to self-report and utilities are required to manually read and check meters twice annually anyway, however the PSC and utilities have refused to honor customers' rights to these options, so legislation is required spelling out these rights is required.

The need for the measures outlined in this legislation including the moratorium, investigations, "no questions asked," no fee utility meter choice program, and the involvement of the CDC are strongly supported by the following facts:

- The Federal Communications Commission stated "**there is no federally developed national standard for safe levels of exposure to radiofrequency (RF) energy....**"<sup>9</sup>
- The World Health Organization designated (electromagnetic fields) EMF and (radiofrequency) RF radiation as a Class 2B Carcinogen in 2011.<sup>3</sup> The Chair of the IARC Monograph Working Group

which evaluated RF radiation, Dr. Anthony Miller, says that there is now sufficient data to re-classify RF radiation as a Class 2A Carcinogen.<sup>10</sup> A peer reviewed paper concludes: **“Based on the Hill criteria, glioma and acoustic neuroma should be considered to be caused by RF-EMF emissions from wireless phones and regarded as carcinogenic to humans, classifying it as group 1 according to the IARC classification. Current guidelines for exposure need to be urgently revised.”**<sup>12</sup>

- The United States Department of the Interior states that **“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”**<sup>13</sup>
  - The American Academy of Environmental Medicine warns of the health risks from transmitting smart utility meters and is calling for a moratorium in their 2013 document titled “Smart Meter Case Studies.”<sup>14</sup>
  - The Public Health Officer of Santa Cruz County in a memorandum to the Santa Cruz County Board of Supervisors on health risks associated with smart meters noted, **“Meeting the current FCC guidelines only assures that one should not have heat damage from SmartMeter exposure. It says nothing about safety from the risk of many chronic diseases that the public is most concerned about such as cancer, miscarriage, birth defects, semen quality, autoimmune diseases, etc. Therefore, when it comes to non-thermal effects of RF, FCC guidelines are irrelevant and cannot be used for any claims of SmartMeter safety unless heat damage is involved”** and **“There are no current, relevant public safety standards for pulsed RF involving chronic exposure of the public, nor of sensitive populations, nor of people with metal and medical implants that can be affected both by localized heating and by electromagnetic interference (EMI) for medical wireless implanted devices. Many other countries (9) have significantly lower RF/MW exposure standards”**<sup>15</sup>
  - The 2012 BioInitiative Report states that **“Bioeffects are clearly established and occur at very low levels of exposure to electromagnetic fields and radiofrequency radiation. Bioeffects can occur in the first few minutes at levels associated with cell and cordless phone use. Bioeffects can also occur from just minutes of exposure to mobile phone masts (cell towers), Wi-Fi, and wireless utility smart meters that produce whole-body exposure. Chronic base station level exposures can result in illness.”**<sup>16</sup>
  - Modeling of Transmitting Smart Utility Meter emissions referenced to the 2012 BioInitiative Report<sup>8</sup> shows that:
    - ✦ “Current FCC Maximum Permitted Exposure (MPE) Limits Are Too High to Protect the Public”
    - ✦ “New Biologically Based RF Exposure Limits, Proposed in the BioInitiative 2012 Report, are 1 Million Times Lower than the FCC Limits, to Protect the Public”
    - ✦ “A Single Smart Meter Can Produce RF Power Density Levels Shown to Cause Biological Effects”
    - ✦ “A Single Smart Meter on a Neighbor’s Home Can Produce RF Power Density Levels Shown to Cause Biological Effects”
- Therefore, **“There is no substitute for a roll back of all Smart Meters at the community level, or higher.”**

- The “Report on Examination of Selected Sources of Electromagnetic Fields at Selected Residences in Hastings-on-Hudson” - Isotope Wireless states **"if the 915 MHz conducted energy were to be held to the same standard as 30 MHz, the level of the 915 MHz conducted energy from the AMR meter would fail."**<sup>1,2</sup>
- The Wisconsin Public Service Commission has absolutely refused to exercise their authority under PSC 113.01(2), PSC 113.0201, and PSC 113.0405 (or similar statutes related to gas and water regulation) to order utilities to use a different meter and accommodate consumers’ health needs. Even in the face of doctor’s letters and potentially life-threatening conditions, the PSC has refused to accommodate utility consumer’s needs, exemplified by their statement statement “Pursuant to Wis. Admin. Code PSC 113.0809, the utility determines the type of metering equipment to be installed and its location,”<sup>17</sup> made in response to a request backed up by two doctor letters. Numerous others have received nearly identical responses.

The preceding facts justify the Wisconsin Legislature adopting the precautionary principle (defined by the Wingspread Statement) as the basis for its health and safety management policies, especially related to Transmitting Smart Utility Meters. The precautionary principle states: “When an activity raises threats of harm to the environment or human health, precautionary measures should be taken, even if some cause and effect relationships are not yet fully established.”<sup>18</sup>

SECTION 4. Official Wisconsin Documents, to be delivered to all Wisconsin Utility Consumers as noted in Section 3-D

Effective Date: Immediate

**Footnotes:**

<sup>1</sup> “Report on Examination of Selected Sources of Electromagnetic Fields at Selected Residences in Hastings-on-Hudson” - Isotope Wireless [http://stopsmartmetersny.org/images/Report\\_on\\_Examination\\_of\\_Selected\\_Sources\\_of\\_Electromagnetic\\_Fields\\_at\\_Selected\\_Residences\\_20140301.pdf](http://stopsmartmetersny.org/images/Report_on_Examination_of_Selected_Sources_of_Electromagnetic_Fields_at_Selected_Residences_20140301.pdf)

<sup>2</sup> DEBUNKING THE UTILITY INDUSTRY MYTH ABOUT SMART METER SAFETY: THE ANTENNA EFFECT <http://stopsmartmetersny.org/debunkingutility.html>

<sup>3</sup> World Health Organization (2011). “IARC Classifies Radiofrequency Electromagnetic Fields As Possibly Carcinogenic To Humans” [http://www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208\\_E.pdf](http://www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208_E.pdf)

<sup>4</sup> “Security holes in power grid have federal officials scrambling” LA Times, April 7, 2014 <http://www.latimes.com/nation/la-na-grid-security-20140407.0,5068036.story#axzz2ymz2yjoV>

<sup>5</sup> James Woolsey former Director of the CIA (11 August 2011). *EnergyNOWnews*. Interview with Thalia Assuras. [http://www.youtube.com/watch?v=aQImZpKW\\_lo](http://www.youtube.com/watch?v=aQImZpKW_lo)

<sup>6</sup> “Regulatory Aspects of Smart Metering: United States Experience” Diane Ramthun (Office of General Counsel, Public Service Commission of Wisconsin) [http://stopsmartmeterswisconsin.files.wordpress.com/2012/07/ramthun\\_smart\\_meter\\_jointmtg\\_tbilisi\\_2011\\_eng\\_final.pdf](http://stopsmartmeterswisconsin.files.wordpress.com/2012/07/ramthun_smart_meter_jointmtg_tbilisi_2011_eng_final.pdf)

<sup>7</sup> Wisconsin Public Service Commission complaints - Sequential comprehensive public records requests. Haphazardly labeled PSC customer complaints records are only kept for a short time and are poorly filed.

<sup>8</sup> Powell, Ronald (2013). “Biological Effects from RF Radiation at Low-Intensity Exposure, based on the BioInitiative 2012 Report, and the Implications for Smart Meters and Smart Appliances”

<http://emfsafetynetwork.org/wp-content/uploads/2013/08/Biological-Effects-From-RF-Radiation-and-Implications-for-Smart-Meters-June-5-2013-2.pdf>

<sup>9</sup> FCC Consumers Guide: “Wireless Devices and Health Concerns” <http://transition.fcc.gov/cgb/consumerfacts/mobilephone.pdf>

<sup>10</sup> Professor Emeritus Dr. Anthony Miller, of the University of Toronto and also Chair of the IARC Monograph Working Group which evaluated RF radiation, about the carcinogenicity of radiation from wireless devices: <http://www.youtube.com/watch?v=wARxnaxrRkK>

<sup>11</sup> “Swedish Review Strengthens Grounds for Concluding That Radiation from Cellular and Cordless Phones Is a Probable Human Carcinogen;” Devra Lee Davis, Santosh Kesari, Colin L. Soskolne, Anthony B. Miller, Yael Stein; *Pathophysiology* - April 2013 (Vol. 20, Issue 2), Pages 123-129, [http://www.pathophysiologyjournal.com/article/S0928-4680\(13\)00003-5/abstract](http://www.pathophysiologyjournal.com/article/S0928-4680(13)00003-5/abstract).

<sup>12</sup> “Using the Hill Viewpoints from 1965 for Evaluating Strengths of Evidence of the Risk for Brain Tumors Associated with Use of Mobile and Cordless Phones,” Hardell and Carlberg, *Reviews on Environmental Health*, Volume 28 (November 2013), Issue 2-3, Pages 97–106, <http://dx.doi.org/10.1515/reveh-2013-0006>.

<sup>13</sup> Correspondence between Willie R. Taylor Director, Office of Environmental Policy and Compliance in the Department of Interior and Mr. Eli Veenendaal of The National Telecommunications and Information Administration in the U.S. Department of Commerce from February 7, 2014 [http://www.ntia.doc.gov/files/ntia/us\\_doi\\_comments.pdf](http://www.ntia.doc.gov/files/ntia/us_doi_comments.pdf)

<sup>14</sup> AAEM American Academy of Environmental Medicine (2013) “Smart Meter Case Series” (Calling for a moratorium on the continued use of transmitting smart utility meters.) <http://marylandsmartmeterawareness.org/wp-content/uploads/2014/02/AAEM-Smart-Meters.pdf>

<sup>15</sup> Santa Cruz, CA Smartmeter Moratorium Ordinance and Public Health Officer Report [http://sccounty01.co.santa-cruz.ca.us/bds/Govstream/BDSvData/non\\_legacy/agendas/2012/20120124/PDF/041.pdf](http://sccounty01.co.santa-cruz.ca.us/bds/Govstream/BDSvData/non_legacy/agendas/2012/20120124/PDF/041.pdf)

<sup>16</sup> BioInitiative Report (2012) <http://www.bioinitiative.org/conclusions/>

<sup>17</sup> Wisconsin PSC response to numerous customer requests for analog meters, no accommodations made.

<sup>18</sup> Wingspread Statement (1998) Wingspread Statement on the Precautionary Principle <http://www.gdrc.org/u-gov/precaution-3.html>

### **Additional Resources:**

Carpenter, Dr. David O. and Cindy Sage, Editors (2012). “The BioInitiative Report”: <http://www.bioinitiative.org/>

Levitt, Blake and Chellis Glendinning (2011). “Dumb And Dangerous: The Problem With Smart Grids”, Counterpunch <http://www.counterpunch.org/2011/03/18/the-problems-with-smart-grids/print> <http://www.resilience.org/stories/2011-03-23/problems-smart-grids> - updated

Hart, Josh (2013). “California PUC Opt-Out Decision. And Delays...And Delays...And Delays”  
<http://stopsmartmeters.org/2013/11/01/cpuc-delays-opt-out-decision-and-delays-and-delays-and-delays/>

Environmental Health Trust [<http://ehtrust.org/>] (2013) “The truth Behind The Cell Phone Industry’s Statement’s” (Page 12)  
<http://ehtrust.org/wp-content/uploads/2013/04/Briefing-Book-April-9.pdf>