



Massachusetts Association for the Chemically Injured, Inc.

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Hearing Officers: Tina.Chin@mass.gov and Sarah.Spruce@mass.gov

Department of Public Utilities

Docket Number D.P.U. 20-69

Jean A. Lemieux, President, Massachusetts Association for the Chemically Injured, Inc.

RE: Comment from the Massachusetts Association for the Chemically Injured, Inc. to the Department of Public Utilities on D.P.U. 20-69 Investigation by the Department of Public Utilities on its own Motion into Modernization of the Electric Grid – Phase II

Dear Mr. Ray and Hearing Officers Chin and Spruce:

On behalf of the members of the Massachusetts Association for the Chemically Injured (MACI), a volunteer, non-profit statewide support, education and referral organization for people with Multiple Chemical Sensitivity (MCS), I am providing comment on D.P.U. 20-69. This docket, while mainly focused on EV and TVR, does raise for comment in Question #8 the movement new wireless service meters and the entire issue of “smart” meter deployment across the Commonwealth (Question #7 asks companies to describe meter replacements). Our organization is opposed to the establishment of any policy that the D.P.U. is proposing that would require “all new service meters to be capable of providing advanced metering functionality when installed to replace an existing meter that reaches the end of its useful life or otherwise needs to be replaced.” The Department, now under a different Administration, does not indicate in the docket that it is open to exploring and revising the previous Administration’s departments reliance on the basic technology platform for grid modernization being that of “wireless” technology in its advanced metering functionality and deployment of utility meters. An extensive amount of public comment was given responding to dockets under the Grid Modernization of 12-76, some six years ago. Also, the issue of a cost./tariff to a consumer who requests a non-radiating utility meter as raised in Docket 13-83 is questionable and unresolved for it discriminates against those who need to protect their health and are entitled to protections under the ADA. The Opt-Out Tariff that the Department raised in its D.P.U. 12-76B Order to the utility companies to address raises again the issue of discrimination to a segment of the population most in need of non-radiating utility meters.

The Massachusetts Association for the Chemically Injured has not changed our position as outlined in our previous comment responses to the Department of Public Utilities. Written comments were provided from our organization on D.P.U. 12-76-A in January 2014 and, as the President of the Massachusetts Association for the Chemically Injured, I participated on the health and safety hearing panel February 27, 2014 offering oral comment. These comments are part of the record. At the hearing I submitted a number of documents as part of our organization’s comment for the record and a few of our organization’s comments are mentioned in the D.P.U. 12-76B Order. At the panel hearing I stated that I deal with real life experience, as a chemically sensitive individual myself and in my role in talking with our members and with the many people who contact our organization. In follow-up to the Panel Hearing I submitted on March 14, 2014 Reply Comment from the

Massachusetts Association for the Chemically Injured, Inc. to the Department of Public Utilities on D.P.U. 12-76. It remains our position that the Massachusetts Association for the Chemically Injured strongly opposes a grid modernization plan based on wireless technology. We oppose D.P.U. 20-69 and a policy that requires meter replacement with advanced metering functionality. There is nothing in the docket by the Department that calls for an investigation into a plan that will move our Commonwealth forward in a manner that will provide for a safer platform that will not result in a far reaching expansion of "wireless exposure" to the citizens of Massachusetts.

Many people who suffer from multiple chemical sensitivities are concomitantly vulnerable to the effects of EMFs and radiofrequency (RFR). The combination of sensitivities is quite disabling and puts their ability to work or live in their residences at greater risk and significantly affects their quality of life. The population survey of hypersensitivity to electromagnetic fields in CA found chemical sensitivity to be an important risk factor for hypersensitivity to EMFs. Given the prevalence of chemical sensitivity documented in several population surveys that indicate while MCS appears to afflict 4 to 6 percent of the population, 15 to 30 percent of the general population perceive themselves as "especially" or "unusually" sensitive to common everyday chemicals in the population with the expanded use of smart meters, this issue will continue to grow for MCS sufferers. Also, it has been found that many people without prior sensitivity developed sensitivity to EMFs/RF following the installation of smart meters.

Below is from MACI's Executive Summary submitted on 12-76A to Secretary Marini. It applies to our position then and current position. A few additions to the summary below are placed in brackets.

Executive Summary

The Massachusetts Association for the Chemically Injured (MACI), in view of our experience as a non-profit statewide support, education and referral organization for people with multiple chemical sensitivity, offers comment to the Department of Public Utilities on D.P.U. 12-76-A, Investigation by the Department of Public Utilities on its own Motion into Modernization of the Electric Grid. Our comments address the issues of wireless (RF) technology and potential health effects from RF exposure for vulnerable segments of the population, including those living with Multiple Chemical Sensitivity. The disabled who are afforded special protection under the federal Americans with Disabilities Act are not acknowledged or protected in the "straw proposal." [or in D.P.U. Order 12-76B or this docket 20-69]. Multiple Chemical Sensitivity is a recognized disability under the ADA. Any tariffs proposed for disabled individuals who choose to "Opt Out" would violate the special protections under ADA as the disabled would not be given equal access in protecting their health.

Unfortunately, we find the "straw proposal" on D.P.U. 12-76-A [DPU Order 12-76B, and DPU 20-69 Phase II] to be severely deficient. MACI appeals to the DPU to:

- Implement a moratorium on the rollout of "smart meters" and wireless network infrastructures which are specific to serve smart meter technology needs,
- Revise the proposal to explore existing alternative technologies to wireless RF technologies that will safeguard the health of Massachusetts residents.
- Address the serious concerns voiced by the public and knowledgeable experts concerning exposure to wireless (RF) exposures relevant to this proposal [and dockets based only on the "wireless" technology platform for utility meters].
- Require implementation of safer technology for a grid modernization plan for the Commonwealth of Massachusetts

MACI strongly supports

- A grid modernization plan informed by the growing body of scientific, technical and bio-effects data regarding the possible consequences of a massive rollout of wireless (RF) smart meter exposure on public health.
- An Opt-Out Provision [for non-radiating utility meters] provided at no extra cost to the resident or business owner in any plan that mandates the use of AMR and AMI meters [and upgraded AMR meters with increased radiation exposure] on residences and businesses.

Our major concerns are:

- The “straw proposal” and DPU’s plan is based solely on wireless (RF) technologies.
- The procedural history in the notice of investigation (NOI) called for an inquiry on potential health concerns that the working group failed to address, thus ignoring the body of scientific, technical and bio-effects data on the possible consequences of implementing widespread wireless (RF) smart meter exposure on public health.
- The DPU’s proposal acknowledges that customers will question the effects of RF on health and has indeed received public testimony on the Utilities Petition D.P.U. 13-83 and D.P.U. 12-76, H2926 in 2013 [H.2868 (2015), S.1864 (2017) and S.1988 (2019) pertaining to smart meters and an opt-out provisions.] However, the DPU failed to adequately address this serious issue and dismissed it by referencing a select number of inferior published reports that are *not* representative of the current body of evidence in the scientific literature and that reported by physicians and individuals’ real life experiences. [relied on pro-industry Reports and testimony given by “tobacco scientist” Peter Valberg and not addressing the evolving non-industry science on the biological and physiological health effects of non-ionizing radiation].
- The Opt-Out Provision to wireless (RF) technology, a vital first step for any mandate of a smart meter installation plan, should not carry an additional cost to burden or penalize residents with tariffs, especially to subgroups of the population who are the most vulnerable to RF exposures.
- People who are afforded special protection under the federal Americans with Disabilities Act are not acknowledged or protected. Multiple Chemical Sensitivity is a recognized disability under the Americans with Disabilities Act. As such, any proposed monthly fees/tariff would violate the special protections under ADA as the disabled would not be given equal access in protecting their health.

We offer a number of quotes and a listing of references supporting of our comments and submit two references as attachments.

I commented in our March 19, 2014 Reply Comment on D.P.U. 12-76:

In addition to the first hand life experiences of the panel members, the epidemiological studies that look at prevalence of chemical sensitivity and EHS in the population and the individual studies reported in the scientific literature documenting health effects to EMFs/RF several questionnaire surveys have been conducted and reported on regarding smart meters and health effects.

Observations, by the individual and/or by physicians, scientists and researchers are part of the scientific process and can assist with recognition and advancing an issue: The use of questionnaire surveys with data collection is very useful in documenting and gathering information in the scientific process. I am including as comment the Attachment to the Massachusetts Association for the Chemically Injured’s Testimony on S.1988, September 2019 which was based on our March 19, 2014 Reply Comment to D.P.U. on 12-76.

I am including as part of our comment on D.P.U. 20-69 the published study by Lamech “Self-Reporting of Symptom Development From Exposure to Radiofrequency Fields of Wireless Smart meters in Victoria, Australia: A Case Series”, *Alternative Ther Health Med.* 2014; 20(6): 28-39. At the time of the Panel Hearing I mentioned the study (and it was mentioned in D.P.U. 12-76B Order) but it was not available at that time for it was in the process of being published. (4)

In addition to the chemically and electrically sensitive subgroup of the population who are most vulnerable to the biological effects of EMS/RF exposure, the D.P.U. must also consider the other segments of the population who are among those most vulnerable to the health effects of such exposures and noted in the scientific literature. The Sage Associates Report *Assessment of Radiofrequency Microwave Radiation Emissions from Smart Meters* summarized that “People who are afforded special protection under the federal Americans with Disabilities Act are not sufficiently acknowledged or protected. People who have medical and or metal implants or other conditions rendering them vulnerable to health risks at lower levels than FCC RF limits may be particularly at risk. This holds true for other subgroups like children and people who are ill or taking medication, or are elderly, for they have different reactions to pulsed RF... The elderly and those on some medications respond more acutely to some RF exposures.” (8, p.8)

Written comments and documents offered before the D.P.U. by members of the public, organizations, scientists, physicians and physician groups have repeatedly mentioned the need to adopt the Precautionary Principle and a preventative approach to moving forward with a grid modernization plan. At the panel hearing on health and safety five of the six panel members addressed the need for the D.P.U. to heed the growing body of scientific literature in setting policy. Dr. Valberg's position on non-ionizing radiation was centered on the thermal effects – “the only kind of interaction it can have with matter is heating it, and it can heat it to various degrees.” This position plays well for industry and industry groups. The D.P.U. has been given a great deal of information on the growing body of science looking at non-thermal biological effects with health consequences for human beings which challenges this old dogma. New guidelines on radiofrequency radiation exposures are needed for what we are exposed to today and decisions that have wide public health implications must be based on today's science. In the face of uncertainty our decision makers on issues that will have such a large public health impact must take a precautionary approach in their setting of policy.

While an opt-out provision is vital, it is only a partial solution because radiation does cross property boundaries. Any mandate of a smart meter installation plan is a mandate for involuntary exposure to wireless technology. The disabled should have the right to protect their health and safety fairly and without monthly fees.

The pandemic has reinforced the reality that medically vulnerable residents deserve, and are entitled to, protection of their health and well-being by society at large. Legislators and government agencies as decision-makers are often in the position of having to translate that expectation into guidance and specific actions, in terms of public policy. While the pandemic response in MA has been extraordinary, protection of medically vulnerable residents has been overlooked in the case of the very basic need to provide safe and reliable electric, gas, and water service for all. Utilities, municipalities, and the MA D.P.U. have all fallen short.

It is imperative that the DPU as the regulatory agency and a decision maker in setting policy for the Commonwealth of Massachusetts base decisions and direction on the best science and on the most

current body of the evidence. The DPU must put a grid modernization program forward that is not just the easiest one available, but the one that is the safest for the general population.

Respectively submitted,



Jean A. Lemieux
President

References:

1. Conrad, Richard, Ph.D. Pre-Filed Testimony of Richard Conrad, Ph.D., MPUC Docket No. 2011-00262.
2. Conrad, Richard, Ph.D. and Ed. Friedman, "Smart Meter Health Effects Survey", Exhibit D, Pre-Filed Testimony of Richard Conrad, Ph.D.; MPUC Docket No. 2011-00262.
3. Halteman, Ed, Consultant, "Wireless Utility Safety Impacts Survey" EMF Safety Network questionnaire survey, 2011.
4. Lamech, Federica, MBBS, "Self-Reporting of Symptom Development From Exposure to Radiofrequency Fields of Wireless Smart meters in Victoria, Australia: A Case Series", *Alternative Ther Health Med.* 2014; 20(6): 28-39.
5. Levallois, Patrick, et.al., "Study of Self-Reported Hypersensitivity to Electromagnetic Fields in California", *Environmental Health Perspectives*, 110/Suppl 4: 619-623 (2002).
6. Maret, Karl, M.D., presentation "EMF Health Concerns associated with RF Metering in California's Smart Grid" at the National Institute for Science, Law & Public Policy interdisciplinary program "The High Road to a True Smart Grid", January 28, 2014
7. Massachusetts Association for the Chemically Injured, Inc., Comments on D.P.U. 13-83 and dockets pertaining to the Department of Public Utilities on D.P.U. 12-76 Investigation by the Department of Public Utilities on its own Motion into Modernization of the Electric Grid, (2014); MACI Testimony on S.1988 (2019-2020).
MACI's statement outlining a section of the Reply Comment from the Massachusetts Association for the Chemically Injured, Inc. to the Department of Public Utilities on D.P.U. 12-76 on two questionnaire surveys on smart meters and health effects (Reference #5).
8. Sage Associates, Environmental Consultants, Report: "Assessment of Radiofrequency Microwave Radiation Emissions from Smart Meters", Sage Associates, Santa Barbara, CA, January 1, 2011.



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Attachment to the Massachusetts Association for the Chemically Injured's Testimony on S.1988, September 2019

A statement highlighting points on two questionnaire surveys on smart meters and health effects that are reported on in the section from pp.4 – 6 in the Reply Comment from the Massachusetts Association for the Chemically Injured, Inc. to the Department of Public Utilities on D.P.U. 12-76 Investigation by the Department of Public Utilities on its own Motion into Modernization of the Electric Grid (March 2014).

In addition to the first hand life experiences of the [health and safety hearing] panel members, the epidemiological studies that look at prevalence of chemical sensitivity and EHS in the population and the individual studies reported in the scientific literature documenting health effects to EMFs/RF several questionnaire surveys have been conducted and reported on regarding smart meters and health effects. Observations, by the individual and/or by physicians, scientists and researchers are part of the scientific process and can assist with recognition and advancing an issue. The use of questionnaire surveys with data collection is very useful in documenting and gathering information in the scientific process.

1). Dr. Karl Maret whose comment to the CCST was submitted into the DPU docket record was a presenter at the National Institute for Science, Law & Public Policy interdisciplinary program "The High Road to a True Smart Grid" at the Commonwealth Club, January 28, 2014.

The title of his presentation was "EMF Health Concerns associated with RF Metering in California's Smart Grid". You may view his full presentation and download the pdf of his slides. (<http://gettingsmarteraboutthesmartgrid.org>)

Dr. Maret cites data from the EMF Safety Network questionnaire survey "**Wireless Utility Safety Impacts Survey**".

The stated objectives of the survey

"were to investigate reported public health and safety complaints about wireless utility meters; to evaluate the impacts on health and safety due to wireless utility meters and to determine whether further study is warranted."(10)

In answer to the question "Are you, or is a member of your household, EMF sensitive? (EMF sensitivity is also called electrical sensitivity, or electrohypersensitivity)

439 respondents answered:

Yes 48.7%=214,

No 11.2%=49,

I don't know 40.1%=176." (10)

One slide in Dr. Maret's presentation shows the top 5 health issues the respondents identified - new or worsened symptoms - after smart meters were installed

- Sleep Issues= 49%
- Stress, anxiety, irritability = 43%
- Headaches=40%
- Ringing in Ears= 38%
- Heart Problems/palpitations=26%. (14)

(The full study can be found through a link within the intro to the survey at <http://emfsafetynetwork.org/survey-results-wireless-meters-impact-health-and-safety/>)

2). Another survey, “**SMART METER HEALTH EFFECTS SURVEY**” was written by Richard Conrad, Ph.D. (conradbiologic.com) and Ed. Friedman (Maine Coalition to Stop Smart Meters) and was submitted in testimony as Exhibit D, Pre-Filed Testimony of Richard Conrad, Ph.D.; MPUC Docket No. 2011-00262.

In testimony Dr. Conrad’s response to the question What is the purpose of the Smart Meter Health Effects Survey? is:

“The purpose was to develop reliable data much more solid than ordinary anecdotal evidence, about possible smart meter health effects, and their time-line (development of symptoms in relation to installation of smart meter in relation to knowledge of meter’s presence).”

“The survey was designed to discover if the health effects/symptoms that many persons have been attributing to smart meter exposures were really caused by those exposures or not.”

Two of the key questions to be answered were:

1. do smart meters initiate electrical sensitivities in previously normal persons, and
 2. do smart meters worsen the electrical sensitivities in persons who were already electrically sensitive.”
- (6, p.8)

In response to What are the conclusions of the Smart Meter Health Effects Survey? Dr. Conrad responded:

“The survey results provide very strong evidence that smart meters are causing painful and debilitating new symptoms in many previously normal healthy people, and causing them to become electrically sensitive to a whole range of electronic devices including Wi-Fi, cell phones and computers. Because of exposure to smart meters, people are becoming electrically sensitive at an unprecedented rate. Many of these people had previously lived with Wi-Fi in their homes on 24/7, worked in offices with Wi-Fi and many computers all day long, and had used cell phones, all without symptoms. This includes professionals from all walks of life: doctors, dentists, nurses, teachers, realtors, salesmen and many who absolutely needed their computers for their work and had loved electronic devices: computer programmers, electronic engineers, accountants and graphic artists.” (6, p.10)

Dr. Conrad further testified “the study results show that in:

1. 210 survey respondents,
2. the majority well-educated (9 PhDs, 1 MD, 1 DDS, 42 MS or MA, 70 BS or BA),
3. many initially healthy and normal, without sensitivities, using WiFi, computers and cell phones without symptoms,
4. many had no prior knowledge of electrical sensitivities and had not cared one way or another about smart meters,
5. all began to develop painful symptoms very typical of electrical sensitivities (including loud tinnitus, heart palpitations or arrhythmias, burning skin, severe headaches, neuropathies, difficulty concentrating, sleep problems and more) soon after their smart meters were installed,
6. where 42% of them were not even aware that a smart meter had been installed on their home until after they developed symptoms (a double-blind “experiment”), and 16% did not develop symptoms until weeks or months later (if they were going to have psychosomatic symptoms, these would have developed in minutes, hours or days, not 2 weeks or months), and
7. when they were able to have the smart meters removed, their symptoms lessened usually immediately, sometimes completely, and usually leaving them with electrical sensitivities where they no longer can use their electronic office equipment at all, or only for very short periods of time.” (6, pp.12-13)

References:

6. Conrad, Richard, Ph.D. Pre-Filed Testimony of Richard Conrad, Ph.D., MPUC Docket No. 2011-00262.
10. Halteman, Ed, Consultant, “Wireless Utility Safety Impacts Survey” EMF Safety Network questionnaire survey, 2011.
14. Maret, Karl, M.D., presentation “EMF Health Concerns associated with RF Metering in California’s Smart Grid” at the National Institute for Science, Law & Public Policy interdisciplinary program “The High Road to a True Smart Grid”, January 28, 2014