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February 10, 2023

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Subject: **Response to 1/30/2023 Eversource Reply, per the urgent health request from Lily Sinnamon to have her injurious digital meter replaced.**

Attorney Callahan:

On behalf of Lily Sinnamon, and with her authority to do so, I am providing response to your January 30, 2023 letter concerning Ms. Sinnamon's **urgent** request to have the new digital power meter replaced with a less injurious electromechanical hybrid meter (as she had prior to May 2022) or a temporary shunt.

This is fundamentally a simple request, one that is both easily remedied and desperately needed. Eversource installed a new digital meter that is quite injurious to Ms. Sinnamon's biology. Her acute symptoms began at the same moment that meter was installed (May 2022), those acute symptoms were relieved when a temporary shunt was installed in August and those acute symptoms re-appeared on the day a second digital meter was installed (August 2022). These facts have not been disputed by Eversource, PURA, OCC or the Attorney General's Office.

Despite the simplicity of the proposed remedy, the demonstrated injurious nature of the digital meters Eversource uses, the provided medical evidence of Ms. Sinnamon's extreme health symptoms and sensitivities[1], no relief has yet been provided. Eversource has attentively ignored the urgency and legitimacy of Ms Sinnamon's situation and has indeed insisted that Eversource's own internal business policies have primacy over the very real and dire health consequences she is experiencing. Your January letter is the most recent in a long communication trail that perpetuates this travesty.

1 Chemical and electrical sensitivity, emphysema, and recovering from her 2021 heart attack each add to her challenges

Your letter contains a few misunderstandings. Understandably, you are not an engineer and so must rely upon technical information provided to you. Likely you are only apprised about a portion of this saga since you have relied upon case documents from PURA and other agencies which do not include all correspondence in this matter. To clear up the misunderstandings, I have been asked to write this letter on Lily's behalf. **Ms. Sinnamon is suffering acutely and needs an immediate remedy of this situation.**

<u>What Is Being Sought IS Possible</u>

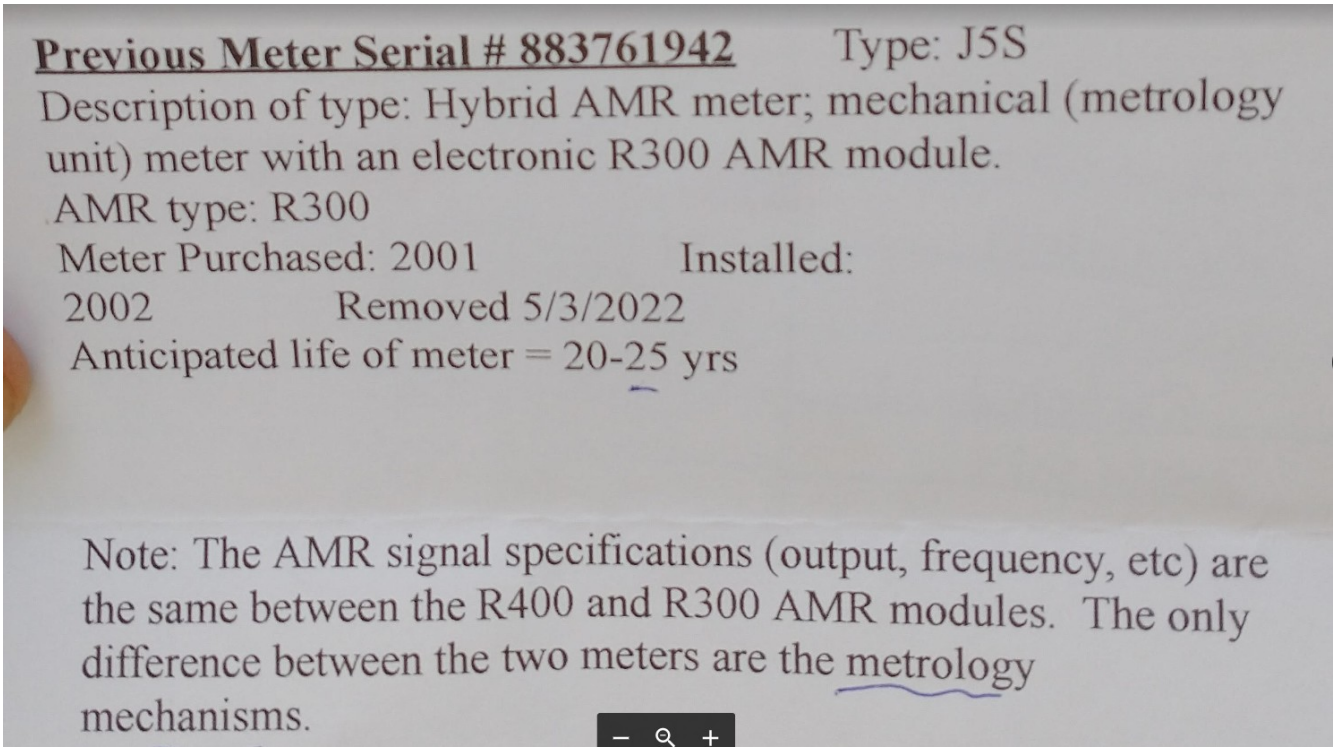
In your reply, you repeat the consistent official Eversource Energy position, that both proposed solutions for Ms. Sinnamon's relief are not possible. Stated clearly, Eversource claims that neither installation of an electromechanical meter similar to what Ms. Sinnamon had in April 2022, nor installation of a temporary shunt until an appropriate long-term solution is arranged, are possible.

The installation of a temporary shunt was IN FACT actually done for Ms. Sinnamon in the month of August 2022 for a period of 10 days. It is therefore obviously possible. Perhaps instead of 'not possible', the word you meant was 'undesirable'. We understand that accurate energy usage billing would be challenging in this scenario. We suggest use of a shunt as an alternate solution because the Eversource has so adamantly stated that it cannot re-install an electromechanical meter, a bewilderingly categorical pronouncement. A shunt is merely meant to be an interim workaround to Eversource's inflexible electromechanical installation policy, not the permanent solution.

That Eversource will categorically not install a hybrid electromechanical meter onto Ms. Sinnamon's house is both disingenuous and inhumane. Even if said meter was figuratively 'still warm' from its being just disconnected from another 'upgraded' customer, according to Eversource this meter is now somehow tainted, citing vague concerns about the 'lifetime' of the electromechanical hybrid meter being 20 years[2]. Whose interests are truly being protected here?

As shown in the following snippet that Eversource provided Ms. Sinnamon, her electromechanical meter lifetime was anticipated to be 20-**25 years**, not merely 20 years. Her meter was 21 years old at the time of its removal. This means **any electromechanical meter that was manufactured after 1998 would still be within that lifetime window.** Does Eversource have a written statement from Schlumberger (the original maker of the electromechanical meter) that states that the lifetime of the meter is only 20 years and that some dread failure mode exists beyond that period?

2 It is well known to Eversource that such meters may work perfectly well for 25, 30 and even 40 years



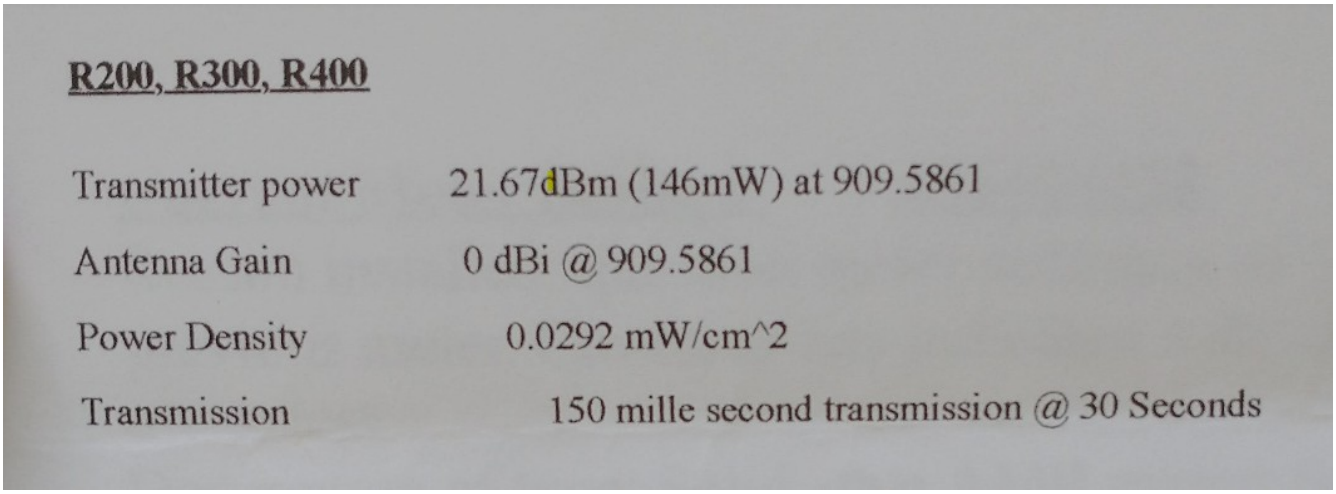
I have personally spoken with the Eversource Manager of the Meter Installation (Chris Kellogg) in September 2022 and he affirmed that there is NO CHANCE of any catastrophic failure when exceeding the anticipated lifetime of the electromechanical meter. Instead there are two minor failure modes noted for an aging electromechanical meter: (a) that the quantified measurement of the power used might be a few percentage points in error (high or low) and (b) that the RF broadcasting R300 module might not upload usage information to Eversource in a timely fashion. Electromechanical meters are very robust and have been so for decades.

Both of these are but very minor considerations. **Ms. Sinnamon's entire health crisis can be eased by redirecting one of your reclaimed electromechanical meters to place it onto her home as soon as possible. This is a very low cost, low effort, low risk and high benefit solution which is why we have repeatedly asked for it.** Eversource instigated Ms. Sinnamon's health collapse by installing the injurious digital meter, and as a corporate attorney paid to protect the Eversource company from making missteps, we strongly urge you to advocate for this simple solution before further escalation is necessary.

Misinformation And False Equivalences

Attorney Callahan, your reply includes a statement that Ms. Sinnamon's older hybrid electromechanical meter (which included an iTron R300 module) and the new digital meter (which is a Centron C1A3B meter with an iTron R400 module) are identical in terms of the maximum RF exposure and 'signal specifications'. There is thus an inference made that this 'equivalence' means that the new digital

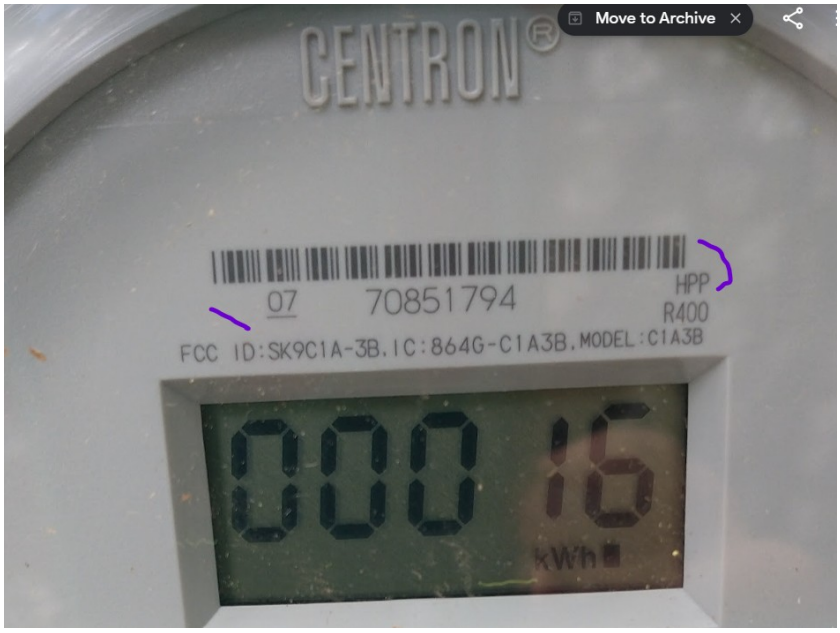
meter can be no more harmful or injurious than the prior hybrid electromechanical meter. In fact, we have also seen this same information come from Eversource, as shown below, and will assume that this is the basis for your statement of equivalence mentioned in the letter. The 'equivalence' between these meters has been so strongly emphasized by Eversource, that one is left wondering what possible advantage the new digital meter offers over the electromechanical one.



R200, R300, R400

Transmitter power	21.67dBm (146mW) at 909.5861
Antenna Gain	0 dBi @ 909.5861
Power Density	0.0292 mW/cm^2
Transmission	150 mille second transmission @ 30 Seconds

This information **does not match the information that the FCC has on file** for the C1A3B digital meter that now resides on Ms. Sinnamon's house. From where does this Eversource information derive? The faceplate for Ms. Sinnamon's meter is shown below. Note that her digital meter is marked with FCC ID: SK9C1A-3B. Also note that the label is also marked with 'R400' and 'HPP'.



The FCC information for the SK9C1A-3B digital meter includes the RF exposure test report and other important data. The actual official FCC coarse RF data is found at document titled "RF Exposure",

found at RF Exposure SK9C1A-3B RF Exposure Info (fcc.report)[3]. This FCC summary information (MPE Calculation) is shown in the table below. This does not quite match the unreferenced information that Eversource provides. The transmit frequency is correct, the radiated power nearly matches, but the antenna gain and power density are quite different. In fact, the power density value reported by the FCC is 134% of what Eversource reports. Eversource is providing sloppy technical information that undermines its credibility and any equivalence conclusions drawn from it.

Table 1: MPE Calculation

Transmit Frequency (MHz)	Radio Power (dBm)	Power Density Limit (mW/Cm2)	Radio Power (mW)	Antenna Gain (dBi)	Antenna Gain (mW eq.)	Distance (cm)	Power Density (mW/cm^2)
909.6	21.42	0.61	138.68	1.5	1.413	20	0.039

This table is only for the R400-based C1A3B module that is part of the injurious digital meter that resides on Ms. Sinnamon's home. Eversource has grouped together R200, R300 and R400 together and this is inappropriate since each of those devices was tested in different years by different labs. Their results will never be identical due to normal variations in testing conditions and the precision of measurement tools.

Further, note that the 'HPP' term on the label indicates that the 'High Power R400' feature is present. This High Power R400 was introduced by iTron[4] and this feature is meant only to push a strong signal when the meter is located in a basement and needs to reach the outside. Why has this very powerful unit has been placed on Ms. Sinnamon's house, where the meter resides outside and has no need to be so over-powering?

For these many inconsistencies, this RF exposure data Eversource provides is insufficient to draw any inference of 'equivalence' with respect to the old electromechanical and the new injurious digital meter.

Microwave Are But One Hazard, and Not the Only Pressing Issue for Ms. Sinnamon

I was happy to note that you and Eversource corporate both recognized the inherent health dangers associated with the microwave RF generated by each of these AMR meters. As you are already aware, in 2011 the World Health Organization (a recognized authority) has classified[5] pulsed digital microwave RF radiation as a Class 2B 'possible human carcinogen', which is the same cancer hazard category as DDT and many pesticides.

By suggesting that Ms. Sinnamon relocate her meter to a distant location, you've acknowledged the microwave RF hazard these digital meters pose and earnestly do believe that this recommendation will reduce Ms. Sinnamon's RF exposure to a level she can abide. Can we assume that you have actual

3 https://fcc.report/FCC-ID/SK9C1A-3B/2962579
4 https://www.itron.com/-/media/feature/products/documents/spec-sheet/101381sp03-c1sr-r400-centron_web.pdf
5 https://www.iarc.who.int/wp-content/uploads/2018/07/pr208_E.pdf

experience with the successful results of this action among other Eversource customers having the same acute health conditions as described in Ms. Sinnamon's medical letters?

Off-house metering is a good new construction deployment recommendation, as a general health and safety guideline, but there are two demerits which make this unworkable in Ms. Sinnamon's situation. First, to convert an existing overhead electrical service to an underground service distant from the living space, which is the Eversource suggestion, does require underground electrical and driveway construction at roughly $10,000 of costs. Eversource is very quick to advocate spending Ms. Sinnamon's money on an unproven alteration with no assurance that it will solve her health issues that have originated with the digital meter installed in May/August 2022.

Additionally, this relocation is not apt to solve the problem because Ms. Sinnamon's electrical hypersensitivity also can be triggered by a second injurious aspect of the digital meter, that of impressed microsurge harmonics[6] onto her home wiring. All digital meters employ a switch-mode power supply which injects 20-500 kHz electromagnetic interference (conducted EMI) onto the home wiring. This is a common reason for sensitive individuals to experience the many of the symptoms that Ms. Sinnamon has listed. **Relocating the digital meter to a distant location will not diminish the hazard** of the conducted EMI (Electromagnetic Interference) because that is not radiated in the air, but running on the wiring into the home. Such EMI hazard can be avoided by running a digital meter from a battery, but Eversource indicated to me that they do not employ that safety feature.

The bottom line is that the digital AMR meter that Eversource placed on Ms. Sinnamon's home has NEVER BEEN SAFETY-TESTED by any health-based organization. Any claim that Eversource makes to the contrary must be justified with health testing report. It has been presumed that the RF and EMI measurement thresholds maintained by the FCC are indicative of long-term human health and they are not, and never have been. In fact, in 2021 the FCC was found[7] by the Federal Court to be capricious by ignoring thousands of pages of submitted health and research testimony that show injurious human health consequences at exposures far below those of Eversource's broadcasting meters. Companies like Eversource, whose only response to complaints of health hazard from the AMR meters is to respond "this meter operates within the guidelines provided by the FCC" are no longer to able to escape liability for their inattention to such well advertised health hazards.

Electro-hypersensitivity IS a Functional Impairment, Considered A 'Disability' per the ADA

Electro-hypersensitivity[8] (EHS), as Lily experiences it, is summarized in the submitted medical letters.

EHS is a functional impairment, a condition where one's body responds acutely to exposure to various electrical phenomena, at power density levels generally able to be borne by non-EHS persons. In Lily's case, her EHS has gotten progressively worse over the last ten years and now, since the Eversource

6 A good primer on the health aspects of transient harmonics is 'Dirty Electricity' by Dr. Sam Milham

7 EHT Wins in Historic Decision, Federal Court Orders FCC to Explain Why It Ignored Scientific Evidence Showing Harm from Wireless Radiation - Environmental Health Trust (ehtrust.org)

8 I strongly encourage Eversource Energy, on behalf of its employees and its customers, to become more knowledgeable about the biological health hazards which are endemic to electrical energies. There is a very inexpensive 2021 EMF Medical Conference whose video recordings fully describe the numerous touchpoints I have raised in this letter. https://emfconference2021.com/

digital meter was installed in May 2022, it dominates her life. She feels electrified all the time in her home, unable to think clearly, unable to breathe properly, with frequent painful neurological spasms. I know many dozens of people experiencing electrical sensitivity and Lily is among the most sensitive I have met.

Attorney Callahan, you indicated that the ADA is not relevant to this situation since you felt that "Eversource has not engaged in any activities that are or could be considered discriminatory". We disagree. Ms. Sinnamon's "full and equal enjoyment" of the necessary electrical service at her home has been greatly diminished by this injurious digital meter, discriminating against her reported disabilities. It has been shown that Ms. Sinnamon's worst health symptoms manifest only when that digital meter is attached to her home and that those health symptoms 'impair a major life activity'. Eversource has denied Ms. Sinnamon's multiple urgent requests for replacement with the less injurious electromechanical meter, demonstrating "unwillingness to accommodate the disabled individual." For these reasons, we feel Ms. Sinnamon's situation does fall under the Americans with Disability Act.

Eversource management has selected and deployed among its customer population a metering device that is known to be implicated in health failures among the population, not just Ms. Sinnamon. AMR meters, as a general class of devices, are repeatedly litigated[9] with respect to health and safety concerns. Senior management of Eversource must be attentive for such recognized hazards as they arise. These might be rare, but they do occur and Ms. Sinnamon's situation highlights this. Eversource must earnestly be attentive to reports of such hazards whenever it deploys new, untested technology so broadly.

Attorney Callahan, you no doubt know the ADA law better than we do and might be able to quote statutes, limitations, exclusions and case law precedent to show that Eversource has no compelling reason to 'accommodate' Ms. Sinnamon's request for a less injurious electromechanical meter. The Americans With Disabilities Act is often used as a firm prod to encourage a company to finds its better angels in contrast with its primary focus on investor financial betterment. **Whether compelled by the law or a sense of moral duty, we are asking Eversource to find its better angels for Ms. Sinnamon.**

<u>Reiterating This Urgent Request</u>

Attorney Callahan, I hope I have brought to your attention important information that you might not otherwise have known to better inform your actions in this matter. At Eversource, we understand there are many business reasons to force wide adoption of digital meters and an understandable fear of establishing a precedent by publicly acknowledging their demerits. Lily is a single person, a human health canary[10] who is more environmentally intolerant than nearly all of your residential clients. **She deserves the dignity of being considered a human whose suffering (caused by Eversource!) can be easily remedied by making a single policy exception to re-install an electromechanical meter or a shunt.**

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9 As one example, this CA case (https://docs.cpuc.ca.gov/efile/C/146649.pdf) was lost by PG&E and has numerous similarities to Ms Sinnamon's situation, especially the "Sixth Cause of Action". In a nutshell, summarized "After having received hundreds of complaints of very serious heath effects from smart meters and smart grid, the CPUC (California Public Utilities Commission) deemed smart meters and smart grid to be perfectly harmless, made a concerted effort to ignore the health complaints from utility customers all suffering from smart meter/smart grid radiation exposure and allowed the utilities to proceed with wanton disregard for public health and safety. "

10 A **canary** here is a metaphor for someone who is an 'early warning indicator' much as the coal-miner's canaries of old.

As one might surmise, I have accumulated experience with digital meters (and people who are made desperately ill by modern technologies such as those meters). I reside in Massachusetts and have offered testimony in the past with my state's bills and the DPU's public forum. I have a National Grid opt-out meter at my home, for which I pay ten dollars per month for someone to come and read it. Eversource has not once even suggested this as a possibility for Ms. Sinnamon, but instead insists the only way forward is to have her spend $10,000 to relocate the digital meter. It is beyond time for Eversource to acknowledge that alternatives need to be considered whenever it broadly deploys new technologies.

The Attorney General, PURA, the OCC all have said that Eversource is the only one that can right this injustice. I do hope that you, as a corporate attorney, will help senior management to properly weigh the costs of making an exception to such a needlessly inflexible policy so as to redress the harm caused. It surely seems that if human health does not have primacy over corporate bureaucracy then there is a desperate need for more state regulation and oversight.

With Respect,

Kenneth J. Gartner
Advocate for Lily Sinnamon of 10 Susan Drive, Stafford Springs CT 06076, 860-684-2850)
Electrical Engineering degree, MIT 1987

Enc: Jan 30, 2023 Eversource Energy reply letter from Attorney Callahan

P.S. -- *Since I first learned of Lily's plight in July of 2022, I have logged more than SIXTY communications with Eversource, PURA, the OCC, the Attorney General and several elected representatives on this single issue of reinstating the less injurious electromechanical meter or a shunt. I do this work* pro bono *as Lily -- an 82 year old with no financial means, failing health, no local family -- has no option other than to stay in her home. For electrically sensitive people, 'nursing homes' or other residential situations can offer nothing but a painful, accelerated demise. I had hoped that one of my persuasive communications would have reached someone's heart at Eversource. The sought solution for Lily (installing the electromechanical meter or a shunt) would cost far less to deploy than even your billable hours to have read this letter. Instead, I have watched Lily suffer unspeakable indignities and decline in health, in pain constantly for being electrified in her own home while the corporate bureaucracy seems ready to out-live her rather than acknowledge her desperate and urgent need.*

P.P.S (From Lily Sinnamon) – *For the chemically and electrically injured, the first medically advised remedy is AVOIDANCE. This allows the injured systems to heal. Following this strategy, I have survived for the last 35 years in my home. With this new digital meter, avoidance is no longer possible. My home has been made unsafe, my health worsens daily without the necessary relief for healing, and my future is bleak.*