

Massaro, Luly (PUC)

From: S Parish <sparish9@gmail.com>
Sent: Tuesday, July 18, 2023 6:19 PM
To: Massaro, Luly (PUC)
Subject: DOCKET NO. 22-49-EL re: ADVANCED METERING FUNCTIONALITY BUSINESS CASE AND COST RECOVERY PROPOSAL
Attachments: Ressiger APRA (7-17-23).pdf

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Please confirm/acknowledge that this written testimony has been received and distributed to the appropriate parties, thank you!

Re: Amended testimony in DOCKET NO. 22-49-EL re: ADVANCED METERING FUNCTIONALITY BUSINESS CASE AND COST RECOVERY PROPOSAL

TESTIMONY OFFERED FROM: Sam Parish, forensic engineer, consulting in building construction and civil infrastructure. He works in Providence, a 20-year Rhode Island resident.

Esteemed Members of the RI Public Utilities Commission:

We received RI Public Utilities Commission letter dated July 17, 2023 in response to our Access to Public Records Request (APRA). We have also submitted the following clarifications to this records request via email today, July 18.

July 18, 2023

Ms. Wilson-Frias
Chief of Legal Services
Cynthia.WilsonFrias@puc.ri.gov

Re: Access to Public Records Request Regarding RIPUC Docket No. 22-49-EL

Dear Ms. Wilson-Frias,

We received the RI Public Utilities Commission letter in response to our Access to Public Records Request (APRA) dated July 17, 2023. We have the following clarifications to this records request, and very much appreciate your patience and response to this final revision, thank you:

1. Please provide, or confirm that there are no records responsive to identifying an independent

engineering review of fire and/or safety issues with the proposed meter replacement plan. The types of issues are listed below for clarity and are documented in past smart meter and electrical fire claims nationwide (help with this document request is appreciated, it is a clarification from before). The lack of a safety review in the RIPUC Docket No. 22-49-EL, AMF Case, and PUC's records could be a concern for our citizens, because a balanced, independent expert, familiar with known electrical and fire problems identified from past legal cases involving smart meter failures should be reviewing the AMF plan and proposed technology. The vulnerabilities of the new smart meters are well documented in court and have likely caused loss of life and damage worldwide. The public, unfortunately, is largely unaware of these five (5) issues, and should not have to bear the burden of proof of safety:

- 1.1 Smart meter negative impact on power surge protection
- 1.2 Smart meters in potential violation of National Electrical Code Exemption (Section 240.4 Protection of Conductors)
- 1.3 Smart meter remote disconnect switch causing fires
- 1.4 Smart meters create dangerous interference on building wiring, and interference with GFCI and AFCIs.
- 1.5 Smart meter base replacement/certification (this is not just a meter exchange)

Again, these five (5) safety issues are provided for clarity and are further detailed and documented in our original APRA.

2. Please provide, or confirm there are no records responsive to addressing surge protection issues, remote disconnect switch issues, or interference on building wiring with the new smart meters. The referenced documents you provided in the response letter, Section 5 pages 57-68, and Bates pages 232, and 262, indicate that this AMF program does not address the safety concerns we have identified. For clarity and background, we have voluntarily commented on safety issues we have identified within the Deployment Plan and the Technical Overview section:

2.1 The Detailed Deployment Plan is utility friendly and does not protect the homeowner and ratepayers. Based on experience with past public infrastructure plan implementations, the coordination-intensive repairs, which are currently listed under a "Special Considerations" category on page 262, are often avoided by the installer, and smart meter installation defects can jeopardize the health and safety of RI citizens. In the Detailed Deployment Plan, starting page 261, Attachment D, the proposed pre-sweeps, and assessment of repairs are not reviewed by an independent third party. The deployment vendor under agreement with the utility, will in some cases, be financially motivated to simply exchange the current meter and/or take other shortcuts. The licensed electrician under contract does not have enough autonomy to represent the homeowner's best interests under this plan. In addition, the "Minor and Major Repairs" listed in this "Special Considerations" section are all likely required, to address known electrical and fire problems we have identified at the meter base and service entrance. These repairs are expensive when properly executed, and require homeowner involvement for safety.

2.2 The Technical Overview section describes features, not life safety and surge protection. In Section 5, Technical Overview of AMF Meters, aside from the arc sensor, the "Hardware" features, "Meteorology" features, "Analytics" features, and "Potential Capabilities" listed in this section do not address the safety concerns we have identified with smart meters in this request, namely: surge protection issues, remote disconnect switch issues, and hazardous interference on building wiring due to smart meters having no conducted emissions filters.

3. Please provide documents responsive to identifying the service life of the proposed AMF meters,

including household “Major Repair” budget calculations, and life-cycle cost accounting as part of the smart meter plan review (help with this document clarification request from before is appreciated). The referenced document 2 you provided in the response letter, “RI Energy’s Response to PUC Record Request 1, Supplemental” identifies the smart meters, thank you, - but we are concerned that the current plan has not fully addressed the costs of major repairs during replacement, and potentially inflated service life, subsidized by ratepayers, as follows:

3.1 Major repairs (referenced in the Detailed Deployment Plan) are required at the meter base and the service entrance, at almost all households, to properly address the full scope of problematic smart meter safety concerns which we have identified.

3.2 Has the new meter technology demonstrated a 20-year service life, and what documentation has been provided to the PUC to support this manufacturer's claim?

Thank you very much for your assistance with our updated final request.

Sent: Sunday, July 2, 2023 11:10 PM
To: Massaro, Luly (PUC) <Luly.Massaro@puc.ri.gov>
Subject: REQUEST TO INSPECT AND/OR COPY PUBLIC RECORDS OF THE PUBLIC UTILITIES COMMISSION PURSUANT TO R.I. Gen. Laws § 38-2-1 et seq.

We, the undersigned, are formally requesting the following records from the RI Public Utilities Commission, in regard to RI PUC Docket Number 22-49-EL re: ADVANCED METERING FUNCTIONALITY [AMF] BUSINESS CASE AND COST RECOVERY PROPOSAL. Please

We, the undersigned, are formally requesting the following records from the RI Public Utilities Commission, in regard to RI PUC Docket Number 22-49-EL re: ADVANCED METERING FUNCTIONALITY [AMF] BUSINESS CASE AND COST RECOVERY PROPOSAL. Please send the records via email to sresseger2016@gmail.com. Please send any questions to the same email address. Thank you

A. We are generally requesting technical documents to be provided which address the known electrical and fire problems associated with certain smart meter makes and models, specifically those of Landis+Gyr, relating to RI Energy's plan as presented to the RI PUC. Specific documentation is listed below. Recent court cases (within the last 10 years) have identified a number of vulnerabilities that may not have been corrected. At a minimum, PPL and RI Energy must provide documentation from a third-party licensed professional engineer familiar with these known electrical and fire problems, and provide written assurance that these problems have been corrected. The public has a right to review the technical documentation for all equipment proposed--before it is installed on our homes and businesses. Documentation addressing (5) five of these smart meter electrical and fire problems, which have a track record in past legal claims, should specifically address:

- 1.) Decreased power surge protection
- 2.) Violation of National Electric Code Exemption
- 3.) Remote disconnect switch load testing
- 4.) Transient voltage with no ground path routed onto building wiring
- 5.) Base stab connection certification

We are requesting technical documentation for the smart meter equipment proposed for installation on our homes and businesses which addresses these problems 1-5. Each smart meter issue is described in more detail (below) and was also provided via written testimony submitted June 12, 2023 by Sam Parish, forensic engineer.

- 1.) Smart meter negative impact on power surge protection

Analog meters are grounded; they are directly connected to the ground via spark-gap technology, which has a proven track record of resistance to power surges. Smart/digital meters are not grounded. They use overvoltage protection devices, including varistors which are not suited to handle sustained power surges, making them highly susceptible to melting, burning, or exploding.

- 2.) Smart meters in potential violation of National Electric Code Exemption

Utility companies were granted an exemption from National Electrical Code (Section 240.4 Protection of Conductors) when they were using analog meters, not smart meters with circuit boards inside them. National Electric Codes sections 230 and 240 address Overcurrent Protection. When there's a surge with a smart meter, it goes directly to the smart meter's circuit board with potentially catastrophic results (explosions and fires). If a utility company changes the nature and functionality of the meter, by replacing an analog meter with an electronic smart meter, it needs to provide documentation that it fully addressed the known failure modes of the smart meter with the regulating body, or they could be found in violation of the terms of the National Electrical Code exemption.

- 3.) Smart meter remote disconnect switch technical review by a third-party expert

Inadequately designed smart meter shut-off relays have been shown to cause fires upon remote re-energization.(1) They are being used as a "Service Disconnect Switch" and full load pre-installation testing is required for the meter disconnect switches. Are the smart meter disconnects rated for the maximum potential load of the dwelling it serves? Are the smart meter disconnects tested and certified to safely disconnect/reconnect under full load conditions? The utility must submit all technical performance data, and certification data for use as a Service Disconnect Switch, a use for which it is not designed. A licensed professional engineer, with expertise in smart meter fire cases, should be involved in the review.

- 4.) Smart meters create dangerous interference on building wiring.

Smart meters have no conducted emissions filters, so the RF signal and SMPS transients are routed

onto building wiring. Smart meters' switching mode power supply (SMPS) creates transient voltage. If the SMPS creates transient voltage above 60 Hz, those transients are normally routed to ground, just like surges. Smart meters create transients but have no ground path. Therefore, there is no way for the meters to shunt the transients to ground. In addition, wireless signals and transients produced by the smart/digital meters interfere with ground fault circuit interrupters (GFCIs) and arc fault circuit interrupters (AFCIs). This interference can make them trip or prevent them from tripping.(2)

5.) Smart meter base stab connections require certification.

We are bringing to your attention that the utility meter bases in Rhode Island could lose their certification because no testing has been done to ensure that the base and the new smart meters are compatible. The base and wiring were designed and certified to hold an analog meter. Known causes of smart meter fires include meters that do not fit into the base properly, leaving a gap that leads to arcing and fires. (3) The blades of new meters are often too thin or not properly sized. This is a hazard that also results in pitting of the metal surface that will increase arcing. Arcing also creates transients which in turn affect the electrical wiring and household appliances and electronics. The utility must provide proof of load testing and certification for this compatibility.

References:

(1.) Electrical Fires and Explosions, authored by Vytenis Babrauskas, Ph.D., top industry forensic expert on electrical fires, recognized worldwide. The book is the most comprehensive collection of documents on electrical fire ignition science, based on decades of experience in fire research, experimentation, and forensic investigations. Each chapter of the book has been peer-reviewed by recognized subject matter experts. Sold by FS&T, Fire Science and Technology Inc., 1250 pages. Visit: <https://doctorfire.com/product/electrical-fires-and-explosions/> [doctorfire.com]
[doctorfire.com [doctorfire.com]]

(2.) PG&E January 2010: <https://skyvisionsolutions.files.wordpress.com/2014/08/pge-gfci-and-afci-rf-interference.jpg> [skyvisionsolutions.files.wordpress.com] [skyvisionsolutions.files.wordpress.com]
[skyvisionsolutions.files.wordpress.com]]

(3.) Testimony regarding meter base and socket problems can be found here: National Labor Relations Board (NLRB) Decision and Order:
<http://apps.nlr.gov/link/document.aspx/09031d4582177a1a> [apps.nlr.gov] [apps.nlr.gov]
[apps.nlr.gov]]

B. During the June 13, 2023 RI PUC Technical Session regarding this docket, PPL/RI Energy was asked, "When will the smart meters need to be replaced?" The response was—in 15-20 years. PPL and RI Energy must provide documentation from a third party licensed professional engineer familiar with the history of smart meter failures, that the specific Landis+Gyr AMF meters proposed for RI have demonstrated this 15-20 year service life.



STATE OF RHODE ISLAND

Public Utilities Commission

89 Jefferson Boulevard
Warwick, Rhode Island 02888
(401) 941-4500

Chairman Ronald T. Gerwatowski
Commissioner Abigail Anthony
Commissioner John C. Revens, Jr.

July 17, 2023

Sheila Resseger, M.A.
sresseger2016@gmail.com

Re: Access to Public Records Request Regarding RIPUC Docket No. 22-49-EL

Dear Ms. Resseger,

This letter is in response to your Access to Public Records Request, sent via email on Sunday, July 2, 2023. In the request, you had provided background information and requested certain documentation. On Thursday, July 13, 2023, you kindly responded to my request for clarification of the records sought, namely:

1. written evidence from a professional, independent engineer who is not affiliated with Landis + Gyr, RI Energy, or PPL confirming that the specific type of "Smart" Meter proposed by RI Energy for Rhode Island homes and businesses has eliminated the fire risks inherent in the vast majority of "Smart" Meters, including those sold by Landis + Gyr, and explaining how those risks have been eliminated; and
2. written evidence from a professional, independent engineer who is not affiliated with Landis + Gyr, RI Energy, or PPL, and who is familiar with the history of "Smart" Meter failures, confirming that the specific Landis + Gyr AMF meter proposed for RI homes and businesses has demonstrated a 15-20 year service life, as PPL/RI Energy asserted.

The identity of the vendor and the types of meters was not disclosed to the PUC until April 2023 as part of the contested case. Therefore, any responses relevant to your questions would be in the docket. A review of the PUC's records, particularly in RIPUC Docket No. 22-49-EL, resulted in no records responsive to the two items listed above.

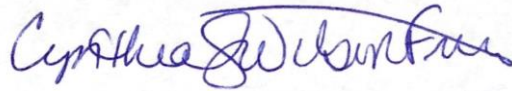
The following documents may be tangentially related to the scope of your original request and can be found on the PUC's website:

1. Section 5 of Rhode Island Energy's Business Case entitled AMF TECHNOLOGY OVERVIEW <https://ripuc.ri.gov/sites/g/files/xkgbur841/files/2022-11/2249-RIE-AMFPlan-Book2%2011-18-22.pdf> (at pdf and Bates pages 57-68) as well as Bates page 232 which includes a description of Network Equipment (same link at pdf page 262).
2. RI Energy's Response to PUC Record Request 1, Supplemental https://ripuc.ri.gov/sites/g/files/xkgbur841/files/2023-05/2249-RIE-RR-1_5-9-23.pdf (at pdf pages 6-10). This includes the identification of the proposed meter equipment and is public. There are redactions for information that falls outside of the scope of the request,

namely unit pricing and quantity. No information responsive to the request has been withheld.

There is no charge for the search.

Sincerely,

A handwritten signature in blue ink, reading "Cynthia G. Wilson-Frias". The signature is fluid and cursive, with a prominent horizontal line across the top of the name.

Cynthia G. Wilson-Frias
Chief of Legal Services

Massaro, Luly (PUC)

From: WilsonFrias, Cynthia (PUC)
Sent: Monday, July 24, 2023 10:06 AM
To: JHutchinson@pplweb.com; JScanlon@pplweb.com; COBrien@pplweb.com; CAGill@RIEnergy.com; JOliveira@pplweb.com; BLJohnson@pplweb.com; SBriggs@pplweb.com; KGrant@RIEnergy.com; wanda.reder@gridxpartners.com; PJWalnock@pplweb.com; aramos@hinckleyallen.com; cdieter@hinckleyallen.com; cwhaley@hinckleyallen.com; ssuh@hinckleyallen.com; Wold, Leo (DPUC); Hetherington, Christy (DPUC); Hogan, Margaret (DPUC); Bell, John (DPUC); Contente, Al (DPUC); Munoz, Joel; George, Linda (DPUC); Golde, Ellen (DPUC); Seaton, Machaela (DPUC); Mancini, Al (DPUC); Roberti, Paul (DPUC); Kogut, Thomas (DPUC); Spirito, John (DPUC); mikebrennan099@gmail.com; robin.blanton@ieee.org; wfwatson924@gmail.com; dlittell@bernsteinshur.com; gboothpe@gmail.com; lkushner33@gmail.com; nvaz@riag.ri.gov; mbedell@riag.ri.gov; Vitali, Albert (DOA); Russolino, Nancy (DOA); Kearns, Christopher (DOA); Beland, Shauna (DOA); Moretta, Matthew (DOA - Contractor); Kreckel, Anika (DOA); Chybowski, Steven (DOA); Cleveland, Nathan (DOA); Owen, William (DOA); james@jrhodeslegal.com; jwood@centerforjustice.org; georgewileycenterri@gmail.com; camiloviveiros@gmail.com; CWaksler@eckertseamans.com; Kmoury@eckertseamans.com; sstoner@eckertseamans.com; jcrowley@clf.org; mcurran@clf.org; Massaro, Luly (PUC); WilsonFrias, Cynthia (PUC); Nault, Alan (PUC); Bianco, Todd (PUC); Rodvien, Emma (PUC); Caramello, Christopher (PUC); Scott, Victoria (GOV); seth@handylawllc.com; swollenburg@seadvantage.com; mmcmahon@seadvantage.com; jgifford@seadvantage.com; amoses@utilidata.com; aboyd@acadiacenter.org; otully@acadiacenter.org; amanda@greenenergyconsumers.org; larry@greenenergyconsumers.org; nlatin@rhodeislandcurrent.com
Subject: FW: FW: REQUEST TO INSPECT AND/OR COPY PUBLIC RECORDS OF THE PUBLIC UTILITIES COMMISSION PURSUANT TO R.I. Gen. Laws § 38-2-1 et seq.
Attachments: RI Energy 22-49-EL AMF ServeList.docx

Good Morning, Counsel,

Attached is the requestor's response to the APRA request – although beyond the date for public comment, in the interest of transparency, I am going to ask Luly to post the entire email chain on the docket page under public comment as it is more substantive than the typical APRA request.

Cindy

From: Sheila Resseger <sresseger2016@gmail.com>
Sent: Monday, July 24, 2023 9:51 AM
To: WilsonFrias, Cynthia (PUC) <Cynthia.WilsonFrias@puc.ri.gov>
Subject: Re: FW: REQUEST TO INSPECT AND/OR COPY PUBLIC RECORDS OF THE PUBLIC UTILITIES COMMISSION PURSUANT TO R.I. Gen. Laws § 38-2-1 et seq.

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Good morning, Ms. Wilson-Frias,

Thank you once again for your prompt, thoughtful, and thorough response to our clarified documents request. I

watched the livestream of the July 21, 2023 Evidentiary Hearing, and want to thank you for bringing up our inquiry at the Hearing. I would like to make a few points regarding statements from the Hearing and also your response to our request:

- Repair budget issue per household/business
- Exposure issues
- Alternative options to AMF
- Service life of the Landis + Gyr meters

Figure 11.26: Meter Costs by Category

Meter Costs				
As of October 24, 2022			Nominal (\$M)	
Category	Nominal (\$M)	NPV (\$2022M)	CapEx	OpEx
Hardware	\$ 73.01	\$ 55.84	\$ 72.85	\$ 0.16
Installs	\$ 19.03	\$ 14.85	\$ 19.03	\$ -
Pre-Sweeps	\$ 4.40	\$ 3.52	\$ 4.40	\$ -
Project Management	\$ 3.39	\$ 2.73	\$ 3.39	\$ -
Repairs	\$ 3.02	\$ 2.35	\$ -	\$ 3.02
Total Meter Costs	\$ 102.85	\$ 79.29	\$ 99.67	\$ 3.18

According to this chart from RI Energy's business plan on page 166, the estimated cost to make repairs is listed at just over \$3 million. Considering that RI Energy is planning to install more than 500,000 meters across RI, that would mean an average of \$6 per household/business for repairs. This does not seem adequate, given the number and types of potential problems that our records request enumerated.

I realize that we did not request documents regarding potential negative health consequences (to humans and flora and fauna), but the topic was brought up during the Hearing. When you asked the question, I believe it was Mr. Walnock who replied something to the effect of comparing the radiation from these meters to emissions from garage door openers, baby monitors, and coffee makers. Although these devices are ubiquitous in our society, even these seemingly innocuous emissions are not in fact safe. When asked if the Landis + Gyr meters are also in this "low level" range, the answer was Yes, and the point was made that according to the WHO, it is completely safe. This statement is untrue.

"Lyon, France, May 31, 2011 -- The WHO/International Agency for Research on Cancer (IARC) has classified radiofrequency electromagnetic fields as possibly carcinogenic to humans (Group 2B), based on an increased risk for glioma, a malignant type of brain cancer, associated with wireless phone use."

https://www.iarc.who.int/wp-content/uploads/2018/07/pr208_E.pdf [iarc.who.int]

I also direct your attention to the landmark case decided against the FCC in August 2021, declaring that the FCC's decision to retain their **1996 exposure guidelines** for radiofrequency/microwave radiation was "arbitrary and capricious." The FCC has still not responded to the court to justify their decision.

The United States Court of Appeals for the District of Columbia Circuit "held that the FCC failed to respond to 'record evidence that exposure to RF radiation at levels below the Commission's current limits may cause negative health effects unrelated to cancer.' Further, the agency demonstrated 'a complete failure to respond to comments concerning environmental harm caused by RF radiation.' The court found the FCC ignored numerous organizations, scientists and medical doctors who called on them to update limits and the court found the FCC failed to address these issues:

- impacts of long term wireless exposure
- impacts to children,
- the testimony of people injured by wireless radiation,
- impacts to wildlife and the environment
- impacts to the developing brain and reproduction."

<https://ehtrust.org/in-historic-decision-federal-court-finds-fcc-failed-to-explain-why-it-ignored-scientific-evidence->

[showing-harm-from-wireless-radiation/ \[ehtrust.org\]](https://ehtrust.org/showing-harm-from-wireless-radiation/)

At some point during the morning session, Chair Gerwatowski asked Mr. David Bonenberger, the President of RI Energy, if there was any alternative analysis to AMF done, or to other variations of AMF.

Mr. Bonenberger answered by talking about the history in PA. PA went from all AMR (2002-2004) to all AMI in 2014-2015. When asked again if not choosing an AMF plan was considered, Mr. Bonenberger answered, "**I am not aware of any other solution that could surpass the benefits of AMF.**" (emphasis added)

Evidently, Mr. Bonenberger has never traveled to Chattanooga, TN, or read about their fantastic success with all Fiber-to-the-Premises. Here is some information from a webinar I attended on July 19, 2023, the day before this Hearing:

Chattanooga, TN has had an all fiber-to-the-premises infrastructure since 2010, which includes a Smart Grid that is end-to-end fiber (no electronics), connected to the meters at the side of homes, which provide real-time data. Note--no radiofrequency/microwave radiation at all. It was stated during the webinar that the Smart Grid reduces outages by 55%. Regarding the lifespan of fiber--it has already been installed for 50 years and is still going strong. It can continue indefinitely, and it is easy to upgrade the electronics. Regarding its carbon footprint--it is a great improvement over wireless.

from promotional material for the "Town Hall – Chattanooga – A Blueprint for NYC," held via zoom on July 19, 2023

"Chattanooga's Highlights:

"Fiber network buildout to and through all homes and businesses in a 600 square mile area.

"2010 symmetrical 1 Gig high-speed internet, fastest internet offering in the US.

"2015 symmetrical 10 Gig, fastest internet offering in the world.

"2022 symmetrical 25 Gig blazingly fast internet to all residences and businesses.

"2022 nation's first commercially available quantum-as-a-service offering across fiber network.

"2010-2020 economic boon reported at \$2.69 billion.

"R&D 100 Award (a/k/a Nobel Prize of Engineering) for cutting-edge quantum cybersecurity tests.

"During Covid, seamless transition for working and learning from home with 100% fiber network.

"Resiliency, with fiber architecture to the premises, easy upgrades and 30-40 year life span."

[https://safetechinternational.org/event/a-broadband-blueprint-for-new-york-city/ \[safetechinternational.org\]](https://safetechinternational.org/event/a-broadband-blueprint-for-new-york-city/)

Finally, I would like to respond to the statement in your email of July 21, 2023 that you have not found other documentation related to number 3 of our request regarding the service life of the proposed Landis + Gyr meters. I find this puzzling and problematic. RI Energy has proposed to recoup the almost \$200 million cost to ratepayers in a 20 year timespan, but a search of the literature shows that these meters only tend to have a 5-7 year lifespan. They are essentially computers, and computers need to be upgraded and replaced.

From Kentucky in 2018:

"These companies told the Public Service Commission there would be a net financial benefit to customers by switching to this Smart Meters/AMS system.

"However, their business case of benefit over cost was based on a 20-year or more service life for these meters.

"The two companies told the PSC the service life of these Landis & Gyr meters is 20 years, and **used a 2-word email from their vendor as their only evidence to justify their claim of a 20-year service life.** (emphasis added)

"The companies' business case falls apart with less than a 20-year service life, and turns to a cost to customers: \$18.1 million cost for an 18-year meter service life and \$67.2 million cost for a 15-year meter service life.

"Congressional testimony by an industry spokesman said Smart Meters' service life is only 5 years, and companies continually report Smart Meters failing after a few years.

"The Attorney General was an intervenor in this case, and recommended PSC denial based on several factors, including that benefits were overstated."

<https://smartmeterharm.org/2018/09/16/kentucky-regulators-reject-two-smart-meter-roll-outs-attorney-general-supports-denial/> [smartmeterharm.org]

I thank you and the Commissioners for doing your due diligence and hope you will decide to protect RI ratepayers and all RI residents from an infrastructure which has demonstrated in other locations for more than a decade that it does not deliver on its promises, and beyond that, causes harm. I look forward to subsequent Evidentiary Hearings and anticipate that these flaws in RI Energy's proposal will be addressed.

Sincerely,
Sheila Resseger, M.A.
Retired Teacher, RI School for the Deaf
Former Sign Language Interpreter, Community College of RI
Co-Founder, 5G Free RI
Board Member, Toxics Information Project
Contact for TechSafe Schools in Cranston

On Fri, Jul 21, 2023 at 11:19 AM WilsonFrias, Cynthia (PUC) <Cynthia.WilsonFrias@puc.ri.gov> wrote:

Good Morning, Ms. Resseger,

The PUC does not have an independent engineering report (Part 1, 1.1-1.5 of the request). At yesterday's hearing the PUC inquired about RI Energy's role in reviewing the safety issues included in your earlier request and associated public comment. The Company discussed a NY Public Service Commission third-party report among other things. The transcript will not be available for at least two weeks. However, the hearing was streamed and recorded, and the information can be found at <https://video.ibm.com/recorded/132918988> [video.ibm.com] (commencing at 02:26:15).

I'm not entirely sure if this is responsive to 2.1, but there is a repair budget for replacement of equipment such as a meter base at the time of deployment at Book 2, AMF Business Case at Bates page 166. This amount flows through the various cost schedules which we can provide links to if necessary:

<https://ripuc.ri.gov/sites/g/files/xkgbur841/files/2022-11/2249-RIE-AMFPlan-Book2%2011-18-22.pdf>

I have not found other documentation responsive to 2.2, 3, 3.1, 3.2.

Sincerely,

Cindy Wilson-Frias

From: Sheila Resseger <sresseger2016@gmail.com>

Sent: Tuesday, July 18, 2023 5:46 PM

To: WilsonFrias, Cynthia (PUC) <Cynthia.WilsonFrias@puc.ri.gov>

Subject: Re: FW: REQUEST TO INSPECT AND/OR COPY PUBLIC RECORDS OF THE PUBLIC UTILITIES COMMISSION PURSUANT TO R.I. Gen. Laws § 38-2-1 et seq.

Re: Access to Public Records Request Regarding RIPUC Docket No. 22-49-EL

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1. Please provide, or confirm that there are no records responsive to identifying an independent engineering review of fire and/or safety issues with the proposed meter replacement plan. The types of issues are listed below for clarity and are documented in past smart meter and electrical fire claims nationwide (help with this document request is appreciated, it is a clarification from before). The lack of a safety review in the RIPUC Docket No. 22-49-EL, AMF Case, and PUC's records could be a concern for our citizens, because a balanced, independent expert, familiar with known electrical and fire problems identified from past legal cases involving smart meter failures should be reviewing the AMF plan and proposed technology. The vulnerabilities of the new smart meters are well documented in court and have likely caused loss of life and damage worldwide. The public, unfortunately, is largely unaware of these five (5) issues, and should not have to bear the burden of proof of safety:

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Again, these five (5) safety issues are provided for clarity and are further detailed and documented in our original APRA.

2. Please provide, or confirm there are no records responsive to addressing surge protection issues, remote disconnect switch issues, or interference on building wiring with the new smart meters. The referenced documents you provided in the response letter, Section 5 pages 57-68, and Bates pages 232, and 262, indicate that this AMF program does not address the safety concerns we have identified. For clarity and background, we have voluntarily commented on safety issues we have identified within the Deployment Plan and the Technical Overview section:

2.1 The Detailed Deployment Plan is utility friendly and does not protect the homeowner and ratepayers. Based on experience with past public infrastructure plan implementations, the coordination-intensive repairs, which are currently listed under a "Special Considerations" category on page 262, are often avoided by the installer, and smart meter installation defects can jeopardize the health and safety of RI citizens. In the Detailed Deployment Plan, starting page 261, Attachment D, the proposed pre-sweeps, and assessment of repairs are not reviewed by an independent third party. The deployment vendor under agreement with the utility, will in some cases, be financially motivated to simply exchange the current meter and/or take other shortcuts. The licensed electrician under contract does not have enough autonomy to represent the homeowner's best interests under this plan. In addition, the "Minor and Major Repairs" listed in this "Special Considerations" section are all likely required, to address known electrical and fire problems we have identified at the meter base and service entrance. These repairs are expensive when properly executed, and require homeowner involvement for safety.

2.2 The Technical Overview section describes features, not life safety and surge protection. In Section 5, Technical Overview of AMF Meters, aside from the arc sensor, the “Hardware” features, “Meteorology” features, “Analytics” features, and “Potential Capabilities” listed in this section do not address the safety concerns we have identified with smart meters in this request, namely: surge protection issues, remote disconnect switch issues, and hazardous interference on building wiring due to smart meters having no conducted emissions filters.

3. Please provide documents responsive to identifying the service life of the proposed AMF meters, including household “Major Repair” budget calculations, and life-cycle cost accounting as part of the smart meter plan review (help with this document clarification request from before is appreciated). The referenced document 2 you provided in the response letter, “RI Energy’s Response to PUC Record Request 1, Supplemental” identifies the smart meters, thank you, - but we are concerned that the current plan has not fully addressed the costs of major repairs during replacement, and potentially inflated service life, subsidized by ratepayers, as follows:

3.1 Major repairs (referenced in the Detailed Deployment Plan) are required at the meter base and the service entrance, at almost all households, to properly address the full scope of problematic smart meter safety concerns which we have identified.

3.2 Has the new meter technology demonstrated a 20-year service life, and what documentation has been provided to the PUC to support this manufacturer's claim?

Thank you very much for your assistance with our updated final request.

Sincerely,

Sam Parish
Forensic Engineer, Consulting in Building Construction and Civil Infrastructure

Sheila Resseger, M.A.
Retired Teacher, RI School for the Deaf
Former Sign Language Interpreter, Community College of RI
Co-Founder, 5G Free RI
Board Member, Toxics Information Project
Contact for TechSafe Schools in Cranston

Stephen Dahl
Director, Rhode Islanders for Safe Technology
Director, Toxics Information Project

On Mon, Jul 17, 2023 at 12:00 PM WilsonFrias, Cynthia (PUC) <Cynthia.WilsonFrias@puc.ri.gov> wrote:

Good Afternoon, Ms. Resseger,

Attached please find the PUC’s Response to your APRA request.

Sincerely,

Cindy Wilson-Frias

From: Sheila Resseger <sresseger2016@gmail.com>

Sent: Thursday, July 13, 2023 9:38 AM

To: WilsonFrias, Cynthia (PUC) <Cynthia.WilsonFrias@puc.ri.gov>

Subject: Re: FW: REQUEST TO INSPECT AND/OR COPY PUBLIC RECORDS OF THE PUBLIC UTILITIES COMMISSION PURSUANT TO R.I. Gen. Laws § 38-2-1 et seq.

Good Morning, Ms. Wilson-Frias,

Thank you for your response to our APRA request. We are requesting documentation of the specific model of the Landis + Gyr AMF meter that RI Energy is proposing to install across RI in all homes and businesses next year.

For this specific model, we are requesting the following documentation:

1. written evidence from a professional, independent engineer who is not affiliated with Landis + Gyr, RI Energy, or PPL confirming that the specific type of "Smart" Meter proposed by RI Energy for Rhode Island homes and businesses has eliminated the fire risks inherent in the vast majority of "Smart" Meters, including those sold by Landis + Gyr, and explaining how those risks have been eliminated.
2. written evidence from a professional, independent engineer who is not affiliated with Landis + Gyr, RI Energy, or PPL, and who is familiar with the history of "Smart" Meter failures, confirming that the specific Landis + Gyr AMF meter proposed for RI homes and businesses has demonstrated a 15-20 year service life, as PPL/RI Energy asserted.

If you require further clarification, I will consult with Mr. Sam Parish, a forensic engineer, who has provided the technical information for our APRA request.

Thank you

Sincerely,

Sheila Resseger, M.A.

Retired Teacher, RI School for the Deaf
Former Sign Language Interpreter, Community College of RI
Co-Founder, 5G Free RI
Board Member, Toxics Information Project
Contact for TechSafe Schools in Cranston

On Mon, Jul 10, 2023 at 4:06 PM WilsonFrias, Cynthia (PUC) <Cynthia.WilsonFrias@puc.ri.gov> wrote:

Good Afternoon, Ms. Resseger,

Your APRA request has been forwarded to me for a response. We are in the process of reviewing all of the documentation in the case to determine if it contains any documents responsive to your request. In order to ensure we are searching for the right information, because there is a great deal of background information contained in your request, please confirm or clarify the following:

1. You are seeking an equipment list with technical specifications.
2. You are seeking any documentation related to electric problems and fire risk associated with any equipment and technical specifications that may fall under number 1.

In the meantime, we have determined that all documents that have been provided by RI Energy to the Commission (commissioners and staff) about the proposed advanced metering functionality investments are currently on file with the Commission and can be found here: <https://ripuc.ri.gov/Docket-22-49-EL>.

Sincerely,

Cynthia G. Wilson-Frias

Chief of Legal Services

Rhode Island Public Utilities Commission

89 Jefferson Blvd.

Warwick, RI 02888

Tel: 401-780-2147

Cell: 401-258-1450

Fax: 401-941-1691

From: Sheila Resseger <sresseger2016@gmail.com>

Sent: Sunday, July 2, 2023 11:10 PM

To: Massaro, Luly (PUC) <Luly.Massaro@puc.ri.gov>

Subject: REQUEST TO INSPECT AND/OR COPY PUBLIC RECORDS OF THE PUBLIC UTILITIES COMMISSION PURSUANT TO R.I. Gen. Laws § 38-2-1 et seq.

We, the undersigned, are formally requesting the following records from the RI Public Utilities Commission, in regard to RI PUC Docket Number 22-49-EL re: ADVANCED METERING FUNCTIONALITY [AMF] BUSINESS CASE AND COST RECOVERY PROPOSAL. Please send the records via email to sresseger2016@gmail.com. Please send any questions to the same email address. Thank you

A. We are generally requesting technical documents to be provided which address the known electrical and fire problems associated with certain smart meter makes and models, specifically those of Landis+Gyr, relating to RI Energy's plan as presented to the RI PUC. Specific documentation is listed below. Recent court cases (within the last 10 years) have identified a number of vulnerabilities that may not have been corrected. At a minimum, PPL and RI Energy must provide documentation from a third-party licensed professional engineer familiar with these known electrical and fire problems, and provide written assurance that these problems have been corrected. The public has a right to review the technical documentation for all equipment proposed--before it is installed on our homes and businesses. Documentation addressing (5) five of these smart meter electrical and fire problems, which have a track record in past legal claims, should specifically address:

- 1.) Decreased power surge protection
- 2.) Violation of National Electric Code Exemption
- 3.) Remote disconnect switch load testing
- 4.) Transient voltage with no ground path routed onto building wiring
- 5.) Base stab connection certification

We are requesting technical documentation for the smart meter equipment proposed for installation on our homes and businesses which addresses these problems 1-5. Each smart meter issue is described in more detail (below) and was also provided via written testimony submitted June 12, 2023 by Sam Parish, forensic engineer.

- 1.) Smart meter negative impact on power surge protection

Analog meters are grounded; they are directly connected to the ground via spark-gap technology, which has a proven track record of resistance to power surges. Smart/digital meters are not grounded. They use overvoltage protection devices, including varistors which are not suited to handle sustained power surges, making them highly susceptible to melting, burning, or exploding.

- 2.) Smart meters in potential violation of National Electric Code Exemption

Utility companies were granted an exemption from National Electrical Code (Section 240.4 Protection of Conductors) when they were using analog meters, not smart meters with circuit boards inside them. National Electric Codes sections 230 and 240 address Overcurrent Protection. When there's a surge with a smart meter, it goes directly to the smart meter's circuit board with potentially catastrophic results (explosions and fires). If a utility company changes the nature and functionality of the meter, by replacing an analog meter with an electronic smart meter, it

needs to provide documentation that it fully addressed the known failure modes of the smart meter with the regulating body, or they could be found in violation of the terms of the National Electrical Code exemption.

3.) Smart meter remote disconnect switch technical review by a third-party expert

Inadequately designed smart meter shut-off relays have been shown to cause fires upon remote re-energization.(1) They are being used as a “Service Disconnect Switch” and full load pre-installation testing is required for the meter disconnect switches. Are the smart meter disconnects rated for the maximum potential load of the dwelling it serves? Are the smart meter disconnects tested and certified to safely disconnect/reconnect under full load conditions? The utility must submit all technical performance data, and certification data for use as a Service Disconnect Switch, a use for which it is not designed. A licensed professional engineer, with expertise in smart meter fire cases, should be involved in the review.

4.) Smart meters create dangerous interference on building wiring.

Smart meters have no conducted emissions filters, so the RF signal and SMPS transients are routed onto building wiring. Smart meters' switching mode power supply (SMPS) creates transient voltage. If the SMPS creates transient voltage above 60 Hz, those transients are normally routed to ground, just like surges. Smart meters create transients but have no ground path. Therefore, there is no way for the meters to shunt the transients to ground. In addition, wireless signals and transients produced by the smart/digital meters interfere with ground fault circuit interrupters (GFCIs) and arc fault circuit interrupters (AFCIs). This interference can make them trip or prevent them from tripping.(2)

5.) Smart meter base stab connections require certification.

We are bringing to your attention that the utility meter bases in Rhode Island could lose their certification because no testing has been done to ensure that the base and the new smart meters are compatible. The base and wiring were designed and certified to hold an analog meter. Known causes of smart meter fires include meters that do not fit into the base properly, leaving a gap that leads to arcing and fires. (3) The blades of new meters are often too thin or not properly sized. This is a hazard that also results in pitting of the metal surface that will increase arcing. Arcing also creates transients which in turn affect the electrical wiring and household appliances and electronics. The utility must provide proof of load testing and certification for this compatibility.

References:

(1.) Electrical Fires and Explosions, authored by Vytenis Babrauskas, Ph.D., top industry forensic expert on electrical fires, recognized worldwide. The book is the most comprehensive collection of documents on electrical fire ignition science, based on decades of experience in fire research, experimentation, and forensic investigations. Each chapter of the book has been peer-reviewed by recognized subject matter experts. Sold by FS&T, Fire Science and Technology Inc., 1250 pages. Visit: <https://doctorfire.com/product/electrical-fires-and-explosions/> [doctorfire.com]

(2.) PG&E January 2010: <https://skyvisionsolutions.files.wordpress.com/2014/08/pge-gfci-and-afci-rf-interference.jpg> [skyvisionsolutions.files.wordpress.com]

(3.) Testimony regarding meter base and socket problems can be found here: National Labor Relations Board (NLRB) Decision and Order: <http://apps.nlr.gov/link/document.aspx/09031d4582177a1a> [apps.nlr.gov]

B. During the June 13, 2023 RI PUC Technical Session regarding this docket, PPL/RI Energy was asked, “When will the smart meters need to be replaced?” The response was—in 15-20 years. PPL and RI Energy must provide documentation from a third party licensed professional engineer familiar with the history of smart meter failures, that the specific Landis+Gyr AMF meters proposed for RI have demonstrated this 15-20 year service life.

Sam Parish

Forensic Engineer, Consulting in Building Construction and Civil Infrastructure

Sheila Resseger, M.A.

Retired Teacher, RI School for the Deaf

Former Sign Language Interpreter, Community College of RI

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