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Monroeville, Pennsylvania

May 17, 2019

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PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

Via Paper Filing

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
400 North Street
Harrisburg, Pennsylvania 17120

RE: **Michele Hriadil and Francis Hriadil v. Duquesne Light Company**
Docket No. C-2016-2571726

Dear Secretary Chiavetta:

Sorry for the oversight on our part concerning our

Response to Respondent's Motion in Limine to
Preclude Complainants Purported Expert Testimony for
Failure to Produce Required Expert Reports

I have resigned and re-dated all of the appropriate papers that you had indicated. Also, I obtained better copies of the Exhibits. I obtained better versions of all of the Exhibits, and enlarged and reformatted them per your request. I believe this should correct any scanning issue.

Thank you for notifying us of these issues and allowing us the opportunity to make the appropriate corrections. I have included a copy of your notification letter per your instructions.

Please feel free to contact me if you have any questions.

Sincerely,

Francis Hriadil 5/17/2019

Francis Hriadil
Complainant
(412) 779-3314
hriadil@attglobal.net

Enclosure

Hearing Scheduled for July 18-19, 2018, "in order to properly review the motion for summary judgment and any response from Complainants." And, Your Honor's Cancellation Notice to the Complainants.

- July 6, 2018 - Complainants' Response to Motion for Summary Judgment, filed within approved extension request.
- November 30, 2018 - Your Honor's Interim Order Denying Motion for Summary Filed By Duquesne Light Company, which the Complainants received on December 4, 2018.
- December 3, 2018 - Your Honor's Interim Order, directing the Respondent and the Complainants to confer on a new potential Hearing date in March or April 2019, which the Complainants received on December 6, 2018.
- December 10, 2018 - Complainants' Motion to Allow a Second Expert Witness, Dr. Andrew Michrowski, Ph'd., for the Complainants, as a result of the denial of the Respondent's motion for summary judgment, and the resulting rescheduling of a new hearing date.
- December 31, 2018 - Respondent's Answer in Opposition to Complainants' Motion to Allow a Second Expert Witness, Dr. Andrew Michrowski, Ph'd. and Motion in Limine to Preclude Complainants' Purported Expert Testimony for Failure to Produce Required Expert Reports.
- January 19, 2019 - Complainants' Response to Respondent's Answer in Opposition to Complainants' Motion to Allow a Second Expert Witness, Dr. Andrew Michrowski, Ph'd. and Motion in Limine to Preclude Complainants' Purported Expert Testimony for Failure to Produce Required Expert Reports.

All of the Complainants' filings, including but not limited to those listed here, along with their supporting documents and exhibits are incorporated here-in by reference as if fully restated.

3. Complainants will first deal with the Respondent's objection related to Complainants' expert witnesses, Dr Carpenter and Dr Michrowski. Then, we will address the objections to Francis Hriadil and Michele Hriadil.

4. For clarity in this matter Complainants have copied the exact wording of pertinent requirements in question.

5. Your Honor's Prehearing Order (dated February 6, 2018), regarding Litigation schedule instructions, specifically states the following:

"any party wishing to present expert testimony (including but not limited to medical, technical, etc.) must provide to the other party in writing, the name and business address of that expert and a written summary of the expected testimony of that expert."
(emphasis added)

Further, it states that 2 1/2 weeks before the Hearing,

"Complainants and Counsel for Respondent are directed to **provide one another with copies of all exhibits and statements which the parties intend to present at the hearing.**" (emphasis added)

Complainants wish to point out that both the Complainants and the Respondent agreed to the language and instructions in this Hearing schedule. The Respondent had every opportunity to request any qualification or clarification of this language that it thought was necessary and it chose to do nothing. The Complainants' independent expert witnesses, Dr Carpenter and Dr Michrowski, both provided concise, written, and signed summaries of their intended testimonies, as well as their respective contact information and curriculum vitae.

6. The Respondent's First Set of Discovery Requests Directed to Complainants (dated Sept 11, 2017) with regard to expert witnesses states the following:

- "11. State the full name, address, and telephone number of each person who You expect to call to testify as an expert witness at any hearing of this matter and, for each expert witness, state:
 - a. The **subject matter** on which the expert is expected to testify;
 - b. The **substance of the facts and opinions** to which the expert is expected to testify; and
 - c. A **summary of the grounds** for each expert opinion.
12. Produce the **report** of any expert You intend to call to testify on Your behalf at trial.
13. Produce the **curriculum vitae** of any expert that You intend to call to testify on your behalf at trial."
(emphasis added)

As part of Discovery, and per Your Honor's Hearing schedule instructions, Complainants supplied to the Respondent, with official Certificates of Service and verification per 52 Pa. Code S 1.36, the contact information, the subject matter and substance of each expert's facts and opinions, the published reports and documents comprising the summary of the grounds for each

expert's opinions, and the curriculum vitae of both Dr Carpenter and Dr Michrowski. The published expert analyses and reports supplied to the Respondent, which were authored by each of these experts, detailed their respective extensive, comprehensive, and recognized expert critical views concerning RF and LF emitting technology, such as the smart meter technology being deployed by the Respondent. The Complainants provided the reports that were provided by our experts. Nothing in the language of the Respondent's interrogatory expressly defines what their requested "report" must consist of. What the Complainants have provided is more than sufficient to answer and satisfy the Respondent's interrogatory.

Dr. David Carpenter's contact information, curriculum vitae, expert statement, etc., which had already been served to the Respondent in Discovery, were supplied for review by Your Honor as part of Complainants' July 6, 2018 Response to Respondent's Motion Summary Judgment. Dr. Carpenter's expertise and participation was challenged in the Respondent's Summary Judgment Motion, and the Respondent's entire Motion was denied by Your Honor in your Interim Order of November 30, 2018.

Dr. Andrew Michrowski's contact information, curriculum vitae, expert statement, etc., were supplied with Complainants' December 18, 2018 Motion to Allow a Second Expert Witness, Dr. Andrew Michrowski, Ph'd., for the Complainants, and further reports by Dr. Michrowski were supplied to the Respondent as part of Discovery in Complainants' January 04, 2019 3rd Set of Additional Documents, in Response to Respondent's First Set of Discovery Requests Directed to Complainants.

7. 52 Pa. Code § 5.324(a)(1)(ii) to which the Respondent refers states:

"That the other party have each expert so identified state the substance of the facts and opinions to which the expert is expected to testify and a summary of the grounds for each opinion. The party answering the interrogatories may file as the answer a report of the expert, have the interrogatories answered by the expert or provide written direct testimony of the expert. The answer, separate report or testimony shall be signed by the expert and shall be deemed to be provided under oath in accordance with section 333(d) of the act (relating to prehearing procedures)." (emphasis added)

52 Pa. Code § 5.324(a)(1)(ii), to which the Respondent repeatedly refers, indicates that each

expert has to “state the substance of the facts and opinions to which the expert is expected to testify.” The written and signed statements of both Dr Carpenter and Dr Michrowski fulfill this requirement. This code states that the expert statement “may” be filed as a report, etc. but it does not specifically state that the answer “must” or “shall” be filed as a report, etc. in the context that the Respondent is demanding. On the contrary, the code specifically only requires that the expert “state the substance” of their expert view, which both Dr Carpenter and Dr Michrowski have done in their submitted expert statements.

The Respondent astonishingly cries “unfair” here. The Respondent submitted a purported 46 page “expert” statement/report from a Dr Benjamin Cotts and a purported 66 page “expert” statement/report from a Dr Gabor Mezei, and demands that the Complainants provide something similar. It was the prerogative and decision of the Respondent to procure and submit their purported “expert” statements/reports in the manner that they did. It is not the prerogative, nor is it the purview, of the Respondent to demand something similar from the Complainants, two (2) elderly people representing ourselves, as it is not required by Your Honor’s PreHearing Order or the specific language of 52 Pa. Code § 5.324(a)(1)(ii).

Furthermore, this demand is in violation of PA Code § 5.361(a)(2), which states

§ 5.361. Limitation of scope of discovery and deposition

(a) Discovery or deposition is not permitted which:

- (2) Would cause unreasonable annoyance, embarrassment, oppression, or burden expense to the deponent, a person or party

It is noted that the Respondent repeatedly cited this code in its effort to evade the reasonable and appropriate Discovery interrogatories submitted to the Respondent by the Complainants.

Both of the Respondent’s purported “experts” are hired agents and paid advocates for the utility industry, and the Complainants suspect that it was not inexpensive to procure these statements/reports. There is a vested interest here in the utility industry succeeding in the implementation of their smart meter program which has tremendous profit potential for the utility, even though it is detrimental to the well-being of the Complainants and the people of

Pennsylvania. No one can characterize the Respondent's paid experts' opinions as being independent or unbiased.

Again, the Respondent, Duquesne Light Company (DLC), is a publicly traded company with revenues ~ \$806,100,000, net income ~ \$69,600,000, total assets ~ \$2,209,200,000, and being represented Tucker-Arensberg, Attorneys. In comparison, the Complainants are two (2) elderly fixed income individuals, one (1) working full-time and one (1) retired, representing themselves, who do not possess even a fraction of one percent of the revenues, net income, total assets, and resources available to the Respondent. The disparity here is glaring. For the Respondent to attempt to leverage their unmatched resources in this way, to demand that the Complainants match their paid, professionally-produced purported expert statements is unfair, unreasonable, and would impose an unfair burden, etc. on the Complainants in violation of PA Code § 5.361(a)(2).

The Complainants further wish to point out that the "packaging" of the Respondent's experts' statements/reports does not in any way imbue them with any special level of significance, credibility, or validity.

Both of the Complainants expert witnesses are independent of any industry affiliation. They have no vested interest in the success or failure of the Respondent's smart meter program. They are offering their expert testimony free of compensation because of their utmost concern for the well-being of the Complainants, and the well-being of the general public. The expert statements by the Complainants' expert witnesses, Drs Carpenter and Michrowski, are appropriate, concise and to the point, and fulfill the specific instructions of Your Honor's PreHearing Order and the language of 52 Pa. Code § 5.324(a)(1)(ii). The specifics being demanded by the Respondent clearly exceeds these requirements and would introduce and undue burden on the Complainants, two (2) elderly people representing themselves.

8. Furthermore, the standard that the Respondent is demanding with regards to expert witness notification and reporting grossly exceeds what has been accepted and applied in other similar Formal Complainant Hearings held before the PA PUC.

As one example, Complainants are submitting Exhibit 1. In Exhibit 1 is presented the sole expert witness information notification / report for Dr Carpenter required of Richard N Myers, that was accepted by his Administrative Law Judge and the Commission as satisfying all notification and report requirements of the PA PUC, in his Smart Meter Formal Complainant, *Richard N Myers v PPL Electric Utilities Corporation, Docket No.C-2017-2620710*. Dr Carpenter was accepted by the PA PUC as an expert witness in that complainant, and provided testimony for Mr. Myers' hearing. In addition, Mr Myers was not required to submit this summary any sooner than 3 weeks before his April 2, 2018 hearing. Mr. Myers also represented himself in his Formal Complaint, *pro se*. As can readily be seen from this exhibit, the full extent of the written expert report of the expected testimony by Dr Carpenter consisted of no more than one sentence, plus the exhibits that Dr Carpenter intended to submit in support of his verbal testimony. The Complainants also wish to note that the listed exhibits shown there, that are pertinent to our complainant, have been supplied to the Respondent in discovery.

The Complainants have properly served much more than this to the Respondent as part of Discovery in our proceeding, as we have previously argued and demonstrated in our pleadings before Your Honor.

9. Concerning, Respondents Francis Hriadil and Michele Hriadil, under Pennsylvania law, a person qualifies as an expert witness if, through education, occupation or practical experience, the witness has a **reasonable pretension to specialized knowledge** on the matters at issue.

The Respondent continues to attempt to present and frame a picture and representation of the Complainants, with their degrees, advanced degrees, and extensive technical backgrounds and experience, as essentially ignorant of this technology; the specific form, fit, and function of Duquesne Light's Smart Meter in its Smart Mesh; its specific operating parameters and characteristics; and the inherent and increased risks that this technology poses to the Complainants in particular, who are elderly, etc. The Respondent attempts to minimize in the extreme, the educational and professional backgrounds and the technical competence, acumen, and experience of the Complainants. This representation is patently without merit.

Complainant Francis Hriadil

- has an advanced degree from M.I.T, and has had a long career performing work as a recognized engineering professional and inventor, on classified and unclassified programs, requiring expertise in engineering, analysis, advanced technology, mathematics, and physics.
- has worked in the Defense sector on both advanced strategic and tactical missile programs.
- has designed, invented, and received a patent on advanced technical equipment incorporating technology, materials, and electrical components, etc. more involved than that used in a smart meter.
- and as the owner of 2 technologically based businesses, had access to various industry publications not available to the general public.

Complainant Michele Hriadil

- has extensive experience in the analysis, design, development, testing, implementation and support of custom software for complex distributed computer based systems. Technologies used include: ASP.NET, ASP, Ajax, Visual Basic, c#, SQL Server, Reporting Services, Crystal Reports, Javascript.
- has held positions as Technology Consultant, Lead Developer, and System Architect, including a role as back-up Systems Administrator.

The Complainants' extensive technical and scientific educations, professional backgrounds, and experience and expertise were challenged in the Respondent's Motion for Summary Judgment, and the Respondent's entire Motion was denied by Your Honor in your Interim Order of November 30, 2018.

The Complainants reiterate that their contact information and full curriculum vitae of both Complainants have been supplied to the Respondent as part of Discovery, with official Certificates of Service and verification per 52 Pa. Code S 1.36, and this was supplied for review by Your Honor as part of Complainants' July 6, 2018 Response to Respondent's Motion for Summary Judgment.

Francis Hriadil has not published in academic, or professional, etc. literature because much of his work was and remains classified. Michele Hriadil has not published in academic, or professional, etc. literature because much of her work was, is, and remains proprietary to her employers. The Respondent is well-aware of these circumstances.

Formally published papers/reports are not a mandatory requirement under Pennsylvania law for the acceptance of the expertise of the Complainants. So, the lack of published papers is immaterial in this regard. Nevertheless, Complainants have generated and filed their own direct technical analyses, assessments, summaries, and expert views concerning the Respondent's Smart Meter in its Smart Mesh, as part of their signed written filings, both in Discovery to the Respondent and in official filings to the Commission.

These filings include, but are not limited to:

- Complainant's Formal Complaint, filed and dated October 1, 2016
- Complainant's Response to Respondent's Preliminary Objections to Formal Complaint, filed and dated November 29, 2016
- Complainant's Response Addendum to Respondent's Corrected Preliminary Objections to Formal Complaint, filed and dated December 19, 2016
- Complainant's Response to Respondent's Answer and New Matter to Formal Complaint, filed and dated January 9, 2017, in which Complainants filed a Motion for Summary Judgment against the Respondent and in our behalf.
- Complainant's Response to Respondent's Answer in Opposition to Complainant's Motion for Summary Judgment, file and dated January 20, 2017
- Complainant's Correction to Pulse Transmission Table in Complainant's Response to Respondent's Answer and New Matter to Formal Complaint, filed and dated January 24, 2017.
- Complainant's New Matter [#1], filed and dated January 24, 2017,

in which Complainants filed a Motion for Summary Judgment, and Commission recognition of material facts, against the Respondent and in our behalf, and to which the Respondent specifically failed to respond, stating it was not required to respond.

- Complainant's New Matter #2, filed and dated January 27, 2017, in which Complainants filed a Motion for Summary Judgment, and Commission recognition of material facts, against the Respondent and in our behalf, and to which the Respondent specifically failed to respond, stating it was not required to respond.
- Complainant's New Matter #3, filed and dated February 3, 2017, in which Complainants filed for Commission recognition of material facts, to which the Respondent failed to respond.
- Complainant's Notice to Plead New Matter #4, filed and dated February 14, 2017, in which Complainants filed a Motion for Summary Judgment, and Commission recognition of material facts, against the Respondent and in our behalf, and to which the Respondent failed to respond.
- Complainant's Response to Respondent's Motion Summary Judgment, filed and dated July 6, 2018.

These are on record with Your Honor and the Commission, and, in lieu of submitting all of this material all over again, are all incorporated here-in by reference as if fully restated. These have provided the Respondent and the Commission with the **subject matter and substance of the intended testimony** by the Complainants.

A Smart Meter "expert" clearly lacks the necessary background and expertise to speak intelligently on the advanced strategic and tactical missile technology that Complainant Francis Hriadil has worked on, or on the advanced equipment he has invented and patented. Smart Meter technology can by no means be classified as "rocket science." Complainants respectfully submit that Francis Hriadil understands and can intelligently and authoritatively discuss all of the technical details that have been released on Smart Meters and their operation in a Smart Mesh. And, Complainant Michele Hriadil, with her education and professional background in computer science and information technology also make her intimately knowledgeable concerning the handling and managing of computer databases, interfaces, etc. Complainants respectfully submit that both Francis Hriadil and Michele Hriadil possess more than the minimum requirements necessary to satisfy reasonable pretension to specialized knowledge on the matters at issue.

As one example, Exhibit 2, Complainant Francis Hriadil, took the Duty Cycle and Transmission Times data published by Itron for their SK9AMI7 OpenWay Smart Meter, the one being deployed by the Respondent, and calculated the corresponding numbers of pulse s transmission occurring within a 24 hr period.

	Duty Cycle	Time in 24 hr	Number of Pulse Transmissions in 24 hr
Minimum	0.02%	18.31 sec	423 (once every 3.40 min)
Mean	0.06%	53.14 sec	1,268 (once every 1.14 min)
Maximum	0.58%	497.80 sec	12,257 (once every 7.0 sec)
Abs Max	5.0%	~ 4,291 sec	105,667 (once every 0.82 sec)
"Expected" Max	1.0%	~ 858 sec	21,133 (once every 4.1 sec)

Francis Hriadil is the originator of these calculations and this analysis, which is not available elsewhere. It represents **specialized knowledge** on the part of the Complainants. And, it is noted that the results of this analysis remain uncontested by the Respondent, and were actually confirmed by the Respondents in their responses to Complainants Discovery Interrogatories. It is re-iterated again that this, as well as other direct analyses by the Complainants, were submitted to the Respondent as part of Discovery, with verification per 52 Pa. Code S 1.36 and in official written filings to the Commission, and the Complainants have always indicated our intention to present and testify to these analyses in our upcoming Hearing.

The Complainants further supplied detailed medical records substantiating and detailing Francis Hriadil's chronic health conditions, about which the Respondent was informed in Discovery, that Francis Hriadil will attest to, along with signed documentation by his physician, Dr. Martin Gallagher, MD, DC; ABOIM Board Certified Family Medicine; Board Certified Integrative Medicine; in which, Dr. Gallagher states that Francis Hriadil should "not be exposed to RF/EMF frequencies generated by a 'Smart Meter' based on (his) current clinical condition as well as from a preventive standpoint."

All of this Complainant generated material, along with the many other detailed and signed official records, reports, and testimonies from various experts, government and non-

government agencies, hearings, etc., which were all fully reviewed, vetted, researched, sourced, and referenced by the Complainants, which support Complainants' analyses, and which were provided to the Respondent in Discovery, and along with the extensive technical, scientific, engineering, and mathematical educational and professional backgrounds of the Complainants comprise the **summary of the grounds** forming the basis of Complainants' expertise and intended testimony. And, the Complainants respectfully submit that it does not take a Phd or an MD to carry out an appropriate and applicable literature survey and document review.

10. In specific areas and on specific subjects where the Complainants lack direct, credentialed, or professional expertise or experience, Complainants have asked recognized independent experts such as Dr Carpenter and Dr Michrowski to testify, and they have agreed.

11. The assessments carried out by the Complainants and the issues that the Complainants are raising are directly supported and corroborated by other independent experts such as Ronald M Powell, PHD (retired); Samuel P Milham, MD, MPH (retired); Martin L. Pall, PHD; Andrew A Marino, MD, JD; David O Carpenter, MD; Andrew Michrowski PHD; William S Bathgate EE ME; Sharon Goldberg, MD; Henry Lai, PHD; Federica Lamech MBBS; Cindy Sage, Sage Associates; Liz Barris - documented Electro-HyperSensitivity (EHS) victim; Patrick Colbeck - Michigan State Senator; Angie Colbeck, MD Epidemiology; and Richard H. Conrad, Ph.D; to name but a few. Complainants have been in direct contact with most if not all of these experts. They were informed of the specific circumstances of the Complainants, our ages, physical conditions, and living environment, and they were asked for their recommendations concerning the deployment of the Respondent's Smart Meter in a Smart Mesh on our residence, etc. To a person, these experts urged Complainant's to seek to prevent such installation and/or provided documentation, testimonies, studies, analyses, etc. all substantiating the detrimental effects that long term exposure to the RF radiation and induced LF radiation created by Smart Meters, such as those being deployed by the Respondent. If the Complainants had

the financial resources available to it that the Respondent has, we could arrange to have every one of these experts appear in person in our Hearing. But, in reality, this is simply not possible.

Complainants cannot afford to bring all of these experts from across the country to our Hearing; but, they granted the Complainants permission to submit their documented testimonies etc. to the PA PUC in support of our complaint, and both Dr. Carpenter and Dr Michrowski have agreed to participate on our behalf by telephonic means. Even though all of these experts cannot participate in our Hearing, their official documentation, analyses, contact information, curriculum vitae, etc. have all been served to the Respondent as part of Discovery.

12. The Respondent is well-aware of the limitation of the Complainants to readily find and produce expert witnesses, and that we cannot match the resources available to the Respondent in this regard to any comparable degree. With its prior filings and motions, and with its current motion, the Respondent has carried out, and continues to carry out, a relentless effort to challenge the participation of any person with expertise in support of the Complainants at every turn, in every way, and according to any pretext that they can contrive. It is obvious that the Respondent is doing this to prevent the occurrence of any opposing expert testimony, and to prevent the Complainants from presenting the full truth of the serious matters at issue in our complaint. All of these prior efforts on the part of the Respondent have failed. Yet, the Respondent continues with this course and this tactic.

The Complainants continue to answer these challenges with facts, clarity, and reason; but, ask Your Honor when does this tactic rise to the level of harassment and intimidation on the part of Respondent?

13. The Complainants re-iterate that Francis Hriadil and Michele Hriadil, and our expert witnesses, Dr David Carpenter and Dr. Andrew Michrowski, have no vested interest in the success or failure of the Respondent's Smart Meter, Smart Mesh program. Complainants have filed their Formal Complainant and request for relief, and our independent expert

witnesses have agreed to testify, because of concern for the well-being of the Complainants and their circumstances in particular, and the people of Pennsylvania in general.

14. The Respondent additionally tries to make the argument that the Litigation Schedule exists separately, distinctly, and independent of the Hearing date. All Litigation Schedules are coordinated with and connected to the Hearing date. The Hearing was scheduled for July 18 - 19, 2018. This Hearing date had the following associated Litigation Schedule timeline:

- Evidentiary Hearing date - July 18 - 19, 2018
- Stipulations by - July 9 (1 week before the Hearing)
- Statements, Exhibits Exchange by - June 29 (2 ½ weeks before the Hearing)
- Dispositive Motions by - June 4 (~ 5 weeks before the Hearing)
- Rebuttal Expert Testimony Notification by - May 18 (~ 8 weeks before the Hearing)
- Factual Testimony Notification by - April 30 (~ 11 weeks before the Hearing)
- Expert Testimony Notification by - April 30 (~ 11 weeks before the Hearing)
- Discovery Requests by - March 16 (~ 17 weeks before the Hearing)

Recall,

- Complainants filed for a Continuance to allow Dr. Carpenter's participation as an expert witness on our behalf on April 30. Your Honor granted the Continuance in your May 10, 2018 Interim Order Regarding Complainants' Request to Modify Litigation Schedule to allow Dr. Carpenter's participation in July, August, or September of 2018.
- Complainants' received Your Honor's May 10 Interim Order on May 14, 2018, and filed our Motion containing Dr. Carpenter's availability schedule for July, August, or September of 2018, per Your Honor's order, on May 18, just 4 days later and well before Your Honor's deadline of May 30. The Respondent did not file their Answer until June 1. The Complainants' received it on June 4, and filed our Response on June 6.

- Respondent filed a huge Motion for Summary Judgment on June 4, which the Complainant's received on June 5, and the size and substance of which led to a significant extension in the Hearing and litigation schedule.
- Your Honor officially cancelled the July Hearing and Litigation timeline on June 29, to properly review the Respondent's Motion for Summary Judgment and the Complainants' Response. In this ruling, Your Honor provided the Complainants until July 6, 2018 to review the Respondent's Motion and submit our response. Complainants complied with that ruling.
- Your Honor denied the Respondent's Motion for Summary Judgment on November 30, and subsequently ruled that both the Complainants and Respondent prepare for, and confer on, a new Hearing and timeline scheduled for some time in March or April 2019.
- The Complainants and Respondent conferred and were able to come to agreement on a new Hearing date of May 1 and 2, 2019, dates on which both parties' respective expert witnesses would be available to participate. Your Honor was informed of this on January 11, 2019, per Your Honor's December 3, 2018 Interim Order.

15. The Complainants were intensively involved in preparing for the July 18 - 19, 2018 Hearing date, when the Respondent filed its massive and very detailed Motion for Summary Judgment, consisting of over 300 pages, on June 4, in which they motioned for a complete dismissal of our complaint and the suspension of our Hearing, or a narrowing of our Hearing, and the disqualification of Dr. Carpenter and the Complainants as expert witnesses. This motion was ultimately and completely denied by Your Honor.

It is a statement of fact, that the Complainants have not been disobedient in any regard, and have met every obligation imposed on them by the prior and now continued Hearing schedule (having requested extensions, all of which were granted, only when necessary and with good reason to deal with the dense motions filed by the Respondent). It is also a matter of record that the Respondent inundated the Complainants with their massive June 4 Motion for

Summary Judgment, which required a very detailed and comprehensive response. As we are just two (2) elderly people, one retired and one still working full time, it took all of the time granted by Your Honor to produce Complainants' comprehensive and substantive response to that Motion.

16. Yet, the Respondent now tries to make a serious argument that the previous Hearing Litigation schedule still applies. How are the Complainants reasonably expected to adhere to a Hearing Litigation Schedule that was put into serious doubt by the Respondent's Motion for Summary Judgment to suspend any Hearing, or potentially impact the issues of the Hearing in unknown and potentially significant ways, or potentially preclude the participation of any of Complainants' identified expert witnesses? This is ludicrous. The Complainants had to stop our Hearing preparations, which were in progress at that time, to address this new and daunting motion. Recall also, that at this time Your Honor had already issued your May 10 Interim Order requesting Dr Carpenter's availability for a new Hearing in July, August, or September.

17. Furthermore, to be clear, and to remind both the Respondent and Your Honor, in its lengthy June 4, 2018 Motion for Summary Judgment, the Respondent **already acknowledged and filed extensive and specific arguments** against Dr Carpenter, his published expert reports, his documented expert testimony and exhibits, and his authoritative published expert opinions and concerns about Smart Meter RF emitting and LF inducing technology, as well as the hazards of RF emitting technology in general. And, in its motion, the Respondent **also acknowledged and filed arguments** against the expert analyses / reports specifically originated by Francis Hriadil, and properly served to it in Discovery. The Complainants responded to the Respondents all encompassing motion in detail in our July 6, 2018 Response to Respondent's Motion for Summary Judgment.

You Honor denied all arguments / requests / motions in Respondent's Motion for Summary Judgment in Your November 30, 2018 Interim Order Denying Motion for Summary Judgment Filed by Duquesne Light Company. The Respondent's Motion in Limine to Preclude Complainants' Purported Expert Testimony for Failure to Produce Required Expert Reports, originally filed on December 31, 2018 and refiled on April 18, 2018, is nothing other than a **second attempt** to challenge the Complainants' expert witnesses and the adequacy of our properly served notifications, summaries, and reports, making the same arguments again that it presented in its June 4, 2018 Motion for Summary Judgment, which Your Honor already denied in toto. Now, the Respondent wishes to also extend this exact same argument to Dr Michrowski.

Complainants aver that the Respondent's arguments have already been made and denied, and to allow the Respondent to revisit these arguments through a second "Same Motion Intent by Another Name" is unfair and prejudicial against the Complainants.

18. The Respondent's Motion for Summary Judgment and the Complainants' Response... took more than 4 months of review by Your Honor before you issued your November 30, 2018 Interim Order Denying Motion for Summary Judgment Filed by Duquesne Light Company. **During this period time, the Complainants had no knowledge as to whether a Hearing would take place or not, if and when that Hearing would be rescheduled, who if any of our potential expert witnesses would be available, how and to what degree any aspects of our complaint and request for relief would be affected, or what impact that would have on our preparations and exhibits.**

Relevant science, analyses, reports, etc. continued to be produced during this interval. Complainants continued our efforts to review any new material and seek out the most authoritative independent and unbiased experts possible with regards to the latest information pertinent to our circumstances and the Respondent's Smart Meter operating in its Smart Mesh. The Respondent was served with a 3rd Set of Additional Documents, in Response to

Respondent's First Set of Discovery Requests Directed to Complainants dated January 04, 2019, with official Certificates of Service and verification per 52 Pa. Code S 1.36. So, the Complainants continue to serve the Respondent with new Discovery documents, reports, notifications, etc. per its Discovery obligation, in as timely of a manner as possible and as the Hearing schedule continues to allow.

19. The Complainants did not cause this significant disruption in the timeline of the scheduled Hearing. The Respondent caused this significant timeline disruption with its voluminous motion and its blatant attempt to prevent or constrain our Hearing and preclude our expert witnesses. The Respondent did not succeed in this regard.

20. Having failed in this effort, and significantly extending the Hearing timeline, the Respondent should not now be rewarded and afforded any consideration in its attempt to impose its biased, one-sided preferences and interpretations on what is expected and required of the Complainants. The Complainants have read all of the pertinent instructions and requirements, and aver that we have made our case that we are in compliance with them all, and Commission standards. Respondent's demand for further material is excessive, unfair, unreasonable, and would impose an unfair burden, etc. on the Complainants, who are two (2) elderly people representing themselves, in violation of PA Code § 5.361(a)(2) at a minimum. Your Honor has reviewed all of our written submissions and responses to date. At all times, we have striven to meet our obligations and to provide our views, information, notifications, assessments, and arguments in as accurate and professional of a manner as possible.

21. Further, and in light of these circumstances, the Respondent should also not now be rewarded and afforded any consideration in its attempt to retroactively hinder or limit the options, opportunities, and new information that has become available to the Complainants as a result of the extended timeline and new Hearing schedule. It is only fair and reasonable that the Litigation Schedule be adjusted accordingly to match the new Hearing schedule.

22. To do otherwise, with regards to the items discussed in sections 20 and 21, would be prejudicial against the Complainants, our complaint, and our effort to present the strongest case possible to meet our burden of proof. And, it would prevent Your Honor and the Commission from getting the full and complete truth concerning the matters at issue. Participation by experts such as Drs. Carpenter and Michrowski, etc. are essential to that end, as is the admission and consideration of the latest information that is available.

23. Recalling the April 24, 2019 Prehearing Conference Call, etc., the Respondent cannot reasonably argue that they have "no idea" what the Complainants' expert witnesses intend to testify to as that has been clearly provided in the Complainants' filings, Discovery servings, etc. in compliance with Commission standards and Your Honor's February 6, 2018 Prehearing Order.

24. Finally, Your Honor cannot justifiably treat Complainants, who are representing themselves, as professional attorneys representing a multi-billion company, which is a violation of the US Supreme Court ruling in Haines v. Kerner, 404 U.S. 520 (1971)), that

plaintiffs representing themselves should not be treated the same as professional attorney and pleadings from plaintiffs pleading as themselves should be held to "less stringent standards" than those drafted by attorneys. (emphasis added)

nor can Your Honor justifiably apply excessive requirements on the Complainants well beyond the standard accepted in other Smart Meter Formal Complaints that have been held before the PA PUC. There must be appropriate accommodation, consistency, and fairness in how Complainants are treated.

25. The officially stated mission of the Public Utility Commission, as specified in its Mission Statement which is documented on the Commission's internet website, is to:

- balance the **needs of consumers** and utilities;
- **ensure safe and reliable utility service** at reasonable rates;
- **protect the public interest**;

- **educate consumers to make independent and informed utility choices;**
- **and, foster new technologies and competitive markets in an environmentally sound manner.**

(emphasis added)

As such, it is the Commission's fundamental duty, as a public service governmental agency operating under the United States and Pennsylvania constitutions, and the Pennsylvania Utility Code, to seek the truth, treat all Complainants fairly, and safeguard the well-being of all people on Pennsylvania soil regardless of age, sex, race, religion, condition, and circumstance, in order to establish compliance with statutes such as Section §1501 of the Public Utility Code, which states

Every public utility shall furnish and maintain adequate, efficient, safe, and reasonable service and facilities, ... as shall be necessary or proper for the accommodation, convenience, and safety of its patrons, ...
(emphasis added)

The testimonies to be provided by the Complainants and their independent expert witnesses, along with the documentation Complainants intend to place into evidence, will definitively establish that this is a matter of direct and detrimental physical and personal consequence to the Complainants, and is a matter that is in the public interest.

WHEREFORE, in light of these circumstances, Complainants aver

that the Respondent's claims and arguments are without merit;

that any implication or inference that the Complainants have been "disobedient" to any degree is without merit;

that the substance of the Respondent's motion in limine has already been presented in its Motion for Summary Judgment and been denied;

that the Complainants have fulfilled, and continue to fulfill, our obligation concerning Discovery, expert witnesses, etc.

as defined in PA Code;

as applied and accepted in other similar Formal Complaints before the PA PUC, including but not limited to Richard N Myers v PPL Electric Utilities Corporation, Docket No.C-2017-2620710;

as specifically ruled and instructed in Your Honor's:

- February 6, 2018 Prehearing Order to which both parties agreed,

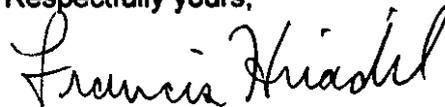
- June 29, 2018 Interim Order Granting Complainants' Request for an Additional Extension of Time to File Response to Respondent's Motion for Summary Judgment and Continuing the Evidentiary Hearing Scheduled for July 19-19, 2018,
- November 30, 2018 Interim Order Denying Motion for Summary Judgment Filed by Duquesne Light Company,
- and December 3, 2018 Interim Order ordering a new Hearing date;

and that the further demands by the Respondent place an excessive and undue burden on the Complainants in violation of PA Code § 5.361(a)(2) and which are inconsistent with the standards applied and accepted in other similar Formal Complaints before the PA PUC.

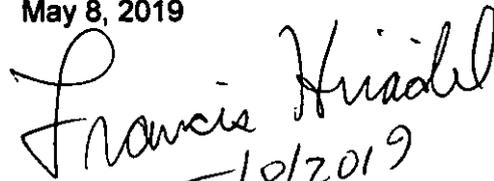
Complainants Michele Hriadil and Francis Hriadil respectfully request that Your Honor rule to this affect, rule to accept the Complainants expert witnesses, and rule that the Respondent's Motion in Limine to Preclude Complainants' Purported Expert Testimony for Failure to Produce Required Expert Reports be denied.

Complainant's response and Certificate of Service have been filed with the Commission's Secretary, in accordance with Commission Regulations.

Respectfully yours,



Francis Hriadil
(412) 779-3314
331 Shady Ridge Drive
Monroeville, Pennsylvania
May 8, 2019



5/8/2019
resigned 5/16/2019

Exhibit 1

**BEFORE THE
PENNSYLVANIA UTILITY COMMISSION**

Richard N. Myers

Complainant

v. **Docket No.C-2017-2620710**

PPL Electric Utilities Corporation,

Respondent

**DIRECT TESTIMONY
DAVID O. CARPENTER, M.D.
ON BEHALF OF
RICHARD N.MYERS**

PUBLIC VERSION

ADDRESSING:

- **RESEARCH RELATING TO BIOLOGICAL HEALTH EFFECTS FROM EXPOSURE TO NON-THERMAL RF RADIATION**

March 12, 2018

Honorable Elizabeth Barnes
Administrative Law Judge
PA Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor West
PO Box 3265
Harrisburg, PA 17105-3265

Your Honor:

As an expert witness appearing on behalf of Mr. Myers at his April 2 hearing in the above referenced matter, enclosed herewith are six Exhibits in support of my Direct Testimony:

- **List of 155 Reviews on Non-thermal Effects of Microwave/Intermediate Frequency EMFs by Martin Pall**
- **International Appeal: Scientists call for Protection from Non-ionizing Electromagnetic Field Exposure**
- **A research paper entitled: "The implications of non-linear biological**

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oscillations on human electrophysiology for electrohypersensitivity (EHS) and multiple chemical sensitivity (MCS)" appearing in Reviews on Environmental Health

- Bioinitiative 2012
- A paper entitled **"Electromagnetic Fields and Cancer: The Cost of Doing Nothing"** by David O. Carpenter, M.D. appearing in Reviews on Environmental Health
- **Radiofrequency Radiation Table showing power density 10 feet from a smart meter**

Mr. Myers will submit my Curriculum Vitae as one of his Exhibits for your review. I look forward to testifying and cross examinations concerning radio frequency fields and health.

Respectfully submitted,



David O. Carpenter, M.D.
Department of Environmental Health Sciences
University at Albany, School of Public Health
Five University Place, Room A217
Rensselaer, NY 12144-3456

Exhibit 2

**Analysis Carried Out by Francis Hriadil
of the Pulse Transmissions of the SK9AMI7**

**submitted in
Complainant's Notice to Plead New Matter,
filed and dated January 24, 2017,
along with Exhibits.**

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From that filed document:

6. [Concerning] ... the ITRON SK9AMI7 Smart Meter, which Duquesne Light is deploying in Pennsylvania, the ITRON White Paper - "Wireless Transmissions: An examination of OpenWay Smart Meter Transmissions in a 24-Hour Duty Cycle" [Exhibit 3 of 5 (4 pages)] for the ITRON SK9AMI7 OpenWay Centron Smart Meter provides Duty Cycle, Time, and Transmission Burst data.

This data is repeated below:

	Duty Cycle	Time in 24 hr
Mean	0.06%	53.14 sec
Maximum	0.58%	497.80 sec
Minimum	0.02%	18.31 sec
Median	0.06%	49.81 sec

ITRON also states that their Maximum Duty Cycle "expectation" lies somewhere between 1% (14.4 min/day) and 5% (72 min/day). And, in typical fashion, they do not provide an exact Transmission Burst Time Interval; they only state that each transmit burst is less than 150 mSec = 150 millsec = 0.15 sec. The question is, how much less?

Using this ITRON provided data, produces the following pulse transmission results

	Duty Cycle	Time in 24 hr	Number of Pulse Transmissions in 24 hr
Minimum	0.02%	18.31 sec	> 122 (> once every 12 min)
Mean	0.06%	53.14 sec	> 354 (> once every 4 min)
Median	0.06%	49.81 sec	> 332 (> once every 4 min)
Maximum	0.58%	497.80 sec	> 3,319 (> once every 26 sec)
Abs Max	5.0%	~ 4,291 sec	> 28,607 (> once every 3 sec)
"Expected" Max	1.0%	~ 858 sec	> 5,720 (> once every 15 sec)

Data from California again, indicates that Smart Meter Transmission Pulses typically last from 2 - 20 millisecc each, not the 150 millisecc upper limit provided by Itron. The shorter the Transmission Pulses are, the more pulses that occur throughout the day. So, we ask again, **what is the actual pulse transmit burst?**

7. Can we get a better idea of what the SK9AMI7 OpenWay Pulse Transmission interval really is and **how the SK9AMI7 actually operates in the field?** It turns out that there is another source of data about the operation of the SK9AMI7 Smart Meter in a Smart Grid, as being deployed by Duquesne Light, that is available that does indeed provide that information.

In documented testimony that was given before the British Columbia Utilities Commission in the Matter of the Utilities Commission Act R.S.B.C. 1996, Chapter 473 And Re: FortisBC Energy Inc. Application for a Certificate of Public Convenience and Necessity for the Advanced Metering Infrastructure Project; Kelowna, B.C.; March 11, 2013; 1., the following question was asked and was answered by Dr. YAKOV SHKOLNIKOV, Affirmed FortisBC Inc. expert witness, and was confirmed by Mr. MARK RICHARD WARREN, Affirmed representative of FortisBC Inc. about **the average pulse transmissions per day of the ITRON SK9AMI7 OpenWay Centron Smart Meter.**

[Exhibit 4 of 5 (3 pages)]

FortisBC Inc. CPCN for AMI
Volume 7, March 11, 2013

Page: 1318

- 1 MR. FLYNN: Q: Thank you. **On average, how many pulses**
2 **per day would that transmitter emit?**
3 DR. SHKOLNIKOV: A: I think the number was filed as
4 interrogatory, and the average is approx I believe
5 1,286 per bursts of transmission per day.
6 R. WARREN: A: **1268.**
7 DR. SHKOLNIKOV: A: Oh, **1268.**

(my emphasis)

Furthermore, FortisBC Inc. submitted Exhibit C4-4 FortisBC Inc. Advanced Metering Infrastructure CPCN on October 26, 2012, which stated on page 32, para. 55.0,

[Exhibit 5 of 5 (2 pages)]

BCSEA-SCBC IR1
FBC AMI CPCN

October 26, 2012
Page 32 of 42

55.0 Topic: Health

Reference: Exhibit B-1, Appendix C-5, Status of Research on Radiofrequency Exposure and Health in Relation to Advanced Metering Infrastructure, (Sub-) Appendix A, Technical Memorandum, Advanced Metering Infrastructure Exposure Assessment, p.A-2 (pdf p.564 of 747)

"In the 900 MHz band, the signal power from the Itron AMI7 meter (FCC ID SK9AMI7) is 689 milliwatts (mW) for an antenna gain of 1.66. Under typical use, the duty cycle is between 0.02% and 0.58% with a mean of 0.06%. The maximum duty cycle under all circumstances is 5%."
[underline added]

(my emphasis)

This exactly matches the information supplied in the ITRON White Paper referred to in Section 6., which has been attached as Exhibit [3].

These 2 pieces of documented information establish that the Mean/Average Duty Cycle of 0.06% equates to the quoted average of 1,268 pulse transmissions per day in the field, which further establishes that the actual Transmission Burst Time Interval is closer to 42 millisecond = 0.042 sec, than the 150 millisecond quoted in the ITRON White Paper.

With this piece of data, the pulse transmission table on page 5 becomes

	Duty Cycle	Time in 24 hr	Number of Pulse Transmissions in 24 hr
Minimum	0.02%	18.31 sec	423 (once every 3.40 min)
Mean	0.06%	53.14 sec	1,268 (once every 1.14 min)
Maximum	0.58%	497.80 sec	12,257 (once every 7.0 sec)
Abs Max	5.0%	~ 4,291 sec	105,667 (once every 0.82 sec)
"Expected" Max	1.0%	~ 858 sec	21,133 (once every 4.1 sec)

8. In either case, **the evidence is clear and incontrovertible that the SK9MIA7 Smart Meters broadcast 100s to 1000s of RF pulse transmissions, like a pulsating strobe, on an ongoing basis throughout the day, 24 hrs a day, 7 days a week.** This is never disclosed to the general public. And, it is completely mischaracterized by the Duquesne Light statement that they "transmit for only short periods every day."

> Itron white paper

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**Wireless
Transmissions:
An Examination of
OpenWay Smart Meter
Transmissions in a
24-Hour Duty Cycle**

Jeff French
Applications Engineer

Mike Belanger
Product Line Manager



Exhibit 3 of 5, Page 2 of 3

An Examination of Itron OpenWay® Wireless Transmissions in a 24-hour Duty Cycle

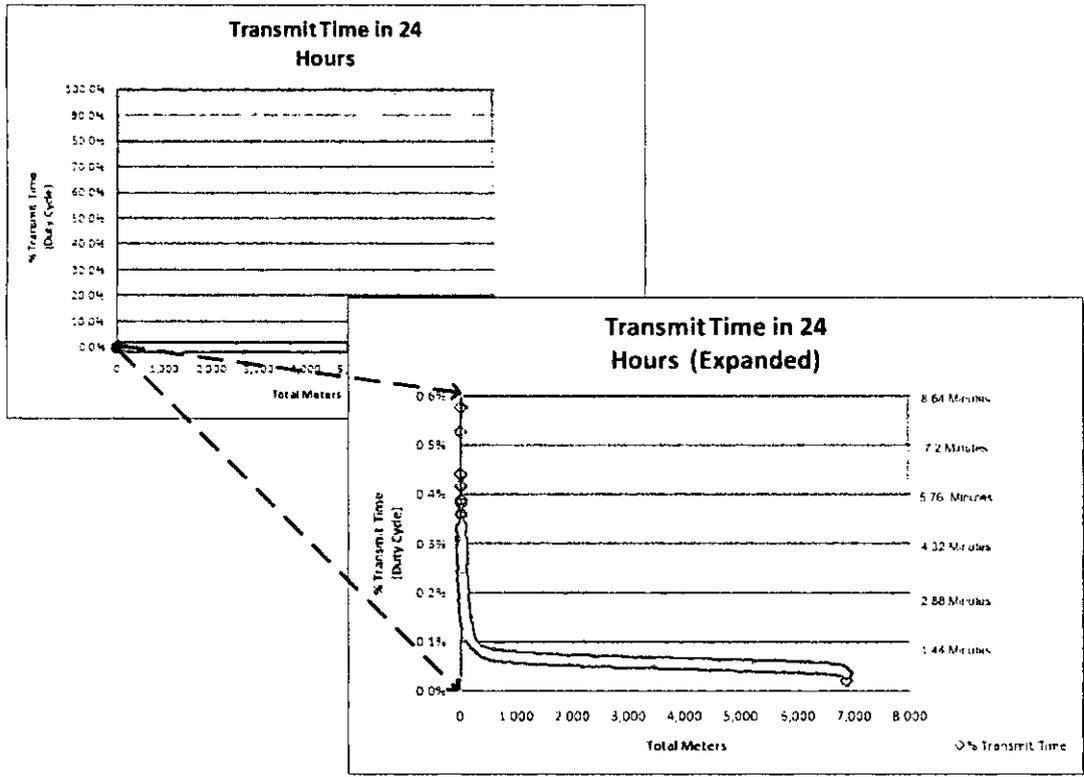


Fig. 2 Percentage of Transmit Time

Figure 2 represents a scatter plot of all meters' transmit times. Because the meters transmit for such a small percentage of the time, the first view appears as a solid blue line resting on the x-axis (below 1%). In the expanded view it is possible to see the maximum daily duty cycle is less than 0.6% (transmit time less than 8.64 minutes/day). This view also shows that 98% of the meters have a daily duty cycle of less than 0.1% (transmit time less than 1.44 minutes/day).

	Duty Cycle	Time
Mean	0.06%	53.14 seconds per day
Maximum	0.58%	497.8 seconds per day
Minimum	0.02%	18.31 seconds per day
Median	0.06%	49.81 seconds per day

Fig. 3 Transmit Time Statistics



The table above (*Figure 3*) shows that meter emission times vary, but even the maximum transmission represents less than 1% of the 24-hour period. Median and Mean (or average) times are relatively close together, which indicates the absence of many meters on the extreme ends of the range.

The sample period that was selected represents a day of higher-than-normal activity for the sample network. During this time, in addition to the two normally scheduled daily meter data reads, there were two crucial updates being transmitted to every endpoint on the network—one for an adjustment for Daylight Savings Time and the other was a crucial firmware update. In a typical day with no updates taking place, the numbers would more than likely be even lower.

Conclusion

OpenWay smart meters are advanced, highly-efficient devices. They are able to communicate a large amount of metering and event data in short bursts throughout a 24-hour period (each transmit burst is less than 150mSec). The worst case meter in the sample population was essentially silent (not transmitting) for over 99.40% of the day while the average meter was silent 99.94% of the day. In terms of FCC regulations for Maximum Permissible Exposure (MPE) limits, the worst case meter was less than 0.09% of the limit mandated by the FCC (0.00051 mW/cm² vs 0.61 mW/cm²) with the average meter less than 0.009% of the FCC limit (0.000053 mW/cm² vs 0.61 mW/cm²). [With the duty cycle is accounted for, See *Note #3*]

This empirical field data further refines our estimations for maximum duty cycle of Itron OpenWay meters. When accounting for the variations in cell size and data requests, our expectations for maximum duty cycle are 1% (14.4 min/day). The previous estimate prior to this field data was 5% duty cycle.

Itron takes all concerns about RF exposure very seriously and continuously strives to ensure its products meet or exceed FCC guidelines and regulations. In the case of OpenWay smart meters, Itron dramatically exceeds these mandates with a product that generates only a very small fraction of the FCC limits for RF exposure.

Note #1:

The sample meter data was taken from one of Itron's large-scale, operational network customers. It is representative of the OpenWay smart grid solution. There were 6,865 meters in the population sample, spread across 10 cells (average cell size of ~687 meters). The data for the Cell Masters is included in this analysis.

BRITISH COLUMBIA UTILITIES COMMISSION
IN THE MATTER OF THE UTILITIES COMMISSION ACT
R.S.B.C. 1996, CHAPTER 473

And

Re: FortisBC Energy Inc.
Application for a Certificate of Public Convenience and
Necessity for the Advanced Metering Infrastructure Project

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Kelowna, B.C.
March 11, 2013

PROCEEDINGS

BEFORE:

L. Kelsey,	Commission Chair / Panel Chair
N. MacMurchy,	Panel Member
D. Morton,	Panel Member

VOLUME 7

Allwest Reporting Ltd.
#1200 - 1125 Howe Street
Vancouver, B.C. V6Z 2K8

1 MR. FLYNN: Q: Thank you. On average, how many pulses
2 per day would that transmitter emit?

5 DR. SHKOLNIKOV: A: I think the number was filed as
4 interrogatory, and the average is approx I believe
5 1,286 per bursts of transmission per day.

6 MR. WARREN: A: 1268.

7 DR. SHKOLNIKOV: A: Oh, 1268.

8 MR. FLYNN: Q: Why is that different than in California
9 where it's 14,000 times per day on average?

10 MR. WARREN: A: We don't know. They use a different
11 system at PG&E, which I think was the reference that
12 you gave. So it's not the Itron OpenWay system.

13 MR. FLYNN: Q: Okay. So your then is what, please, for
14 the average meter pulsing per day?

15 MR. WARREN: A: 1268 was provided in IR responses, an
16 average.

17 MR. FLYNN: Q: What's the peak amount, the peak number,
18 the maximum number they'll pulse per day?

19 MR. WARREN: A: We don't have that information that I'm
20 aware of, but we did have the -- we did file the Itron
21 White Paper that shows what the maximum duty cycle is,
22 which would show what the total time of all of those
23 different transmissions would be at maximum. Which is
24 about 0.58 percent duty cycle.

25 **Proceeding Time 11:04 a.m. T25**

26 MR. FLYNN: Q: Were you aware that in a California

1 California Public Utility Commission that their
2 transmitter is going all the time. There was no lag.

5 So I'm trying to determine how active is
4 this LAN. Never mind the customer uses data --

5 THE CHAIRPERSON: Okay, let's just have the question,
6 please.

7 DR. SHKOLNIKOV: A: Not getting into the details of
8 Silver Spring deployment, the numbers for how active
9 the device is a function of -- they were introduced as
10 an exhibit -- is this the correct exhibit? There was
11 an OpenWay exhibit that listed the distribution and
12 the -- we've summarized it in the E^xponent Report,

13 where the smart --the advanced meter is active 0.06
14 percent of the time on average, which is about one-
15 fifth of a second in a six minute period. And then it
16 -- the maximum observed in the field study they have
17 done is 0.06 percent, and the maximum theoretical duty
18 cycle is about 5 percent of the time. So those are
19 the numbers.

20 MR. WARREN: A: So we've referred to that document a
21 few times. It's called "An examination of Itron
22 OpenWay wireless transmissions in a 24-hour duty
23 cycle", and it is in Appendix BCSEA IR 155.5.

24 **Proceeding Time 11:19 a.m. T28**

25 MR. FLYNN: Mr. Chair, I would like to have the
26 Commission note that there's strong disagreement

REQUESTOR NAME: **BC Sustainable Energy Association**

INFORMATION REQUEST ROUND NO: 1

TO: **FortisBC Inc. (FBC)**

DATE: **October 26, 2012**

PROJECT NO: **3698682**

APPLICATION NAME: **Application for a Certificate of Public Convenience and Necessity (CPCN) for the Advanced Metering Infrastructure (AMI) Project**

Topic: Version of ZigBee

- 1.1 FortisBC notes that it *"is proposing that the advanced meters include HAN functionality at implementation"*¹. For the HAN, FortisBC notes that *"initially the meters will use ZigBee Smart Profile v1.1 . . . also support Zigbee Smart Energy v2.0"*.
- 1.1.1 Please explain why the meters need to support two different versions of ZigBee.
- 1.1.2 Will the two versions be running concurrently in the meter, or will they need to be switched (if so, how will the switch be done)?
- 1.1.3 Can an In-Home Display using v1.1 communicate to a meter running with v2.0?
- 1.1.4 Can an In-Home Display using v2.0 communicate to a meter running with v1.1?
- 1.1.5 It is noted that v2.0 *" . . . is being developed . . . "*².
- 1.1.5.1 When is v2.0 expected to be complete, what hurdles need to be overcome before it is complete and what are the risks?
- 1.1.5.2 How can v2.0 be delivered if it is not yet complete?
- 1.1.5.3 What testing has been done for v2.0 or is expected before it is considered complete? Does FortisBC plan any pilot testing?
- 1.1.6 Whose responsibility is it to work out the technical issues for different versions – FortisBC/Itron or the suppliers of the In-Home Display?
- 1.1.7 How will different versions of ZigBee affect the end customer?

Topic: BC SMI Regulation

- 1.2 FortisBC states: *"the Smart Meters and Smart Grid Regulation (2010) details the prescribed requirements of 'Smart Grid' and 'Smart Meter'"*. Please confirm that the reference is to the Smart Meters and Smart Grid Regulation, B.C. Reg.

¹ Exhibit B-6, BCUC IR 30.1 Response, Page 47, Line 30

² Exhibit B-1, Section 4.1.1, Page 43, Line 14

54.2 Has Exponent, Inc. provided reports on radiofrequency exposure and health in relation to advanced metering infrastructure for clients other than FBC? If so, please provide the number of such reports by year.

54.3 Please provide a copy of any other report by Exponent on RF exposure and health in relation to the Itron AMI7 meter.

55.0 Topic: Health

Reference: Exhibit B-1, Appendix C-5, Status of Research on Radiofrequency Exposure and Health in Relation to Advanced Metering Infrastructure, (Sub-)Appendix A, Technical Memorandum, Advanced Metering Infrastructure Exposure Assessment, p.A-2 (pdf p.564 of 747)

"In the 900 MHz band, the signal power from the Itron AMI7 meter (FCC ID SK9AMI7) is 689 milliwatts (mW) for an antenna gain of 1.66. Under typical use, the duty cycle is between 0.02% and 0.58% with a mean of 0.06%. The maximum duty cycle under all circumstances is 5%.20" [underline added]

55.1 Please confirm that the Itron AMI7 meter (FCC ID SK9AMI7) is the model of advanced meter in FBC's AMI Project. If not, please explain.

55.2 Please confirm that the characteristics of the Itron AMI7 meter described in the passage quoted above accurately describe the characteristics of the advanced meters in the configuration and usage that FBC proposes in the AMI Project.

55.3 Please describe the term "duty cycle" in this context.

55.4 What does a duty cycle "between 0.02% and 0.58% with a mean of 0.06%" and a maximum of "5%" mean in terms of seconds or minutes per hour or per day?

55.4.1 Does this duty cycle include all data from the meter, including data for supporting the mesh network and other network traffic?

55.5 Please explain why the duty cycle is given as a range. Does the duty cycle range apply to each specific installed meter, or to the fleet of meters? Will some installed meters be at the low end of the range while others are at the high end of the range? What factors determine the length of the duty cycle for a particular meter; for the fleet of meters?

55.6 In what circumstances does the maximum duty cycle of 5% occur? Would this occur with a specific installed meter, or with the fleet of meters? How frequently does the maximum duty cycle of 5% occur?

55.7 Please define the mean duty cycle. Is it a weighted average? Does the mean duty cycle of 0.06% include the expected occurrences of the maximum duty cycle?

55.8 Please provide a copy of "Analysis of Radio Frequency Exposure Associated with Itron OpenWay® Communications Equipment" by Itron, Inc. and "Wireless Transmissions: An Examination of OpenWay Smart

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Michele Hriadil and
Francis Hriadil,

Complainant,

vs.

DUQUESNE LIGHT COMPANY,

Respondent.

No: C-2016-2571726

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of Complainants' Response to Respondent's Motion in Limine to Preclude Complainants Purported Expert Testimony for Failure to Produce Required Expert Reports upon the participants listed below in accordance with the requirements of 52 PA. Code § 1.54 (relating to service by a participant):

Via Paper Filing

Judge Jeffrey Watson
PA PUC Pittsburgh Administrative Law Judge Office
301 Fifth Ave, Suite 220
Piatt Place
Pittsburgh, PA 15222

Via Paper Filing

Jeremy V Farrell, Esquire
Paul S Miller, Esquire
1500 One PPG Place
Pittsburgh, PA 15222
(412) 594-5619 (Fax)

Counsel for Respondent, Duquesne Light Company

Dated this 8th day of May, 2019

Francis Hriadil

Michele and Francis Hriadil
331 Shady Ridge Drive
Monroeville, Pennsylvania

(412) 779-3314
hriadil@attglobal.net

Francis Hriadil 5/18/2019
resigned 5/16/2019

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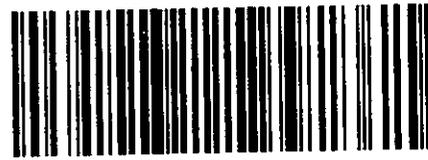
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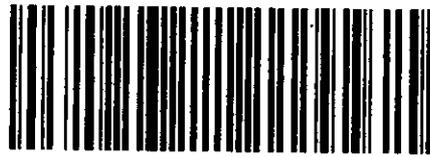
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F. Hriadil
331 Shady Ridge Drive
Monroeville, PA 15146

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
400 North Street
Harrisburg, Pennsylvania 17120

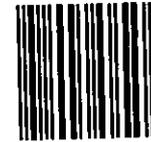
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