

331 Shady Ridge Drive
Monroeville, PA 15146

February 20, 2018

Via Paper Filing

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

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

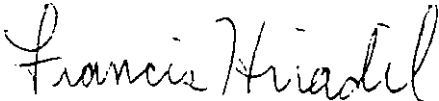
Dear Judge Watson:

Per your February 5, 2018 Interim Order, enclosed please find a copy of Complainants Motion to Compel Discovery with regards to incompletely or insufficiently answered Discovery Requests from Complainants October 5, 2017 Set #1 of Discovery Requests.

A copy of this document has been served upon the Respondent's Counsel, Jeremy V Farrell, Esquire, and PUC Secretary Chiavetta, in accordance with Commission regulations.

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

Sincerely,



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

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FEB 20 2018

PA PUBLIC UTILITY COM.
SECRETARY'S BUREAU

Cc: Jeremy V Farrell, Esquire, Counsel for Duquesne Light Company

Cc: Rosemary Chiavetta, Secretary, Pennsylvania Public Utility Commission

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Michele Hriadil and
Francis Hriadil,

Complainant,

vs.

DUQUESNE LIGHT COMPANY,

Respondent.

No: C-2016-2571726

**MOTION TO
COMPEL DISCOVERY**

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FEB 20 2018

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

Filed by Michele and Francis Hriadil

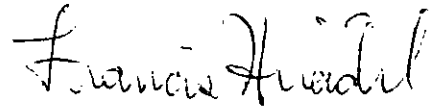
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MOTION TO COMPEL DISCOVERY

TO: THE HONORABLE ALJ JEFFREY A. WATSON

A NUMBER OF ERRORS, OMISSIONS, AND INADEQUACIES WERE DISCOVERED IN A NUMBER OF RESPONDENT'S RESPONSES TO COMPLAINANTS OCTOBER 5, 2017 SET #1 OF DISCOVERY REQUESTS.

IN LIGHT OF THE NATURE OF THE RESPONDENT'S RESPONSES, COMPLAINANTS BELIEVE THAT THE ONLY WAY TO EXPEDITE THE RESOLUTION OF THOSE ERRORS, OMISSIONS, AND INADEQUACIES IS TO REQUEST YOUR HONOR'S ASSISTANCE.



Francis Hriadil
February 20, 2018

None of the Complainants Discovery interrogatories were/are vague, undefined, or hypothetical. They are all reasonable, specific, appropriate, relate directly to, and have a direct bearing on issues of health, safety, reliability, security, and privacy, all of which have been raised in Complainants Formal Complaint and subsequent submissions. If the subject of an interrogatory is known, planned, or predictable, it is not hypothetical, it is not conjecture, and it is a valid area for Discovery.

It is not and was not the intention of the Complainants to be argumentative in any of our interrogatories. Any exposition on the part of the Complainants in a Discovery Request was simply an effort on the part of the Complainants to convey our understanding and provide the Respondent with the opportunity to respond and possibly correct that understanding, if it is in error. If the Respondent could establish that the Complainants understanding was wrong, then that aspect of the Complainants complaint would be resolved. And, if all of the Complainants Discovery Requests could be adequately answered and its concerns resolved, then there would be no further need to continue with our complaint. It was the Respondent's opportunity to resolve aspects of Complainants complaint, but Respondent chose in many instances to be critical, dismissive, and/or defensive.

c. Complainants filed an original Motion to Compel Discovery on December 30, 2017 averring that many of Respondent's responses to their Set #1 of Discovery Requests were vague, inconsistent, and/or incomplete. The Respondent objected to that motion, and to answering further questions by the Complainants.

d. On February 5, 2018, Your Honor reviewed the Complainants Motion and made an Interim Ruling stating that,

"Complainants may file a more specific and concise Motion to Compel response to the discovery requests propounded by Complainants on October 5, 2017, identifying the specific interrogatories or requests for production that are incomplete, insufficient, or otherwise objectionable and the specific basis for each such claim, on or before February 20, 2018."

e. This document constitutes the Complainants new filing in this regard. Provided

herein are the specific interrogatories at issue from Complainants October 5, 2017 Set #1 of Discovery Requests, the Respondent's original responses, the issues with those responses, why those interrogatories are pertinent, and where appropriate, a restatement of that interrogatory to clarify any possible misunderstanding about what specifically is being sought.

Complainants strove to satisfy Your Honor's desire for Complainants to be both specific and concise. Some of the requests in Complainants previous motion have been removed. Complainants are very specific in detailing the deficiencies that we have encountered in the Respondent's responses to the remaining outstanding Discovery Requests indicated herein, and Complainants are providing them in as concise of a manner as is humanly possible given the complexity of the technology and the issues that are involved. Complainants could see no other way of being complete other than by presenting what is presented herein. Repeating both the original Discovery Requests and the Respondent's original responses to those requests, unfortunately, has added to the size and volume of this document.

This is not meant to unduly burden the Respondent, or Your Honor, it is simply an honest effort to obtain the complete truth and the facts, to obtain a complete and accurate understanding of the physical nature, function, and operation of the Respondent's Smart Meter in its Network Mesh.

To facilitate and expedite the Respondent's responses, the Complainants reformulated as many of their questions as possible so that they require a simple answer, or a simple yes or no answer. Where more detailed answers or numbers are requested, it is necessitated completely by the nature and complexity of the device, its network, and its operation. In some instances, clarifying language is included to minimize any confusion concerning what is specifically being asked. And, in some instances, a number of additional questions were asked to have the Respondent elaborate on and clarify the meaning its original responses.

Where some questions composing a specific Discovery Request have been repeated, it is by necessity because they are pertinent to that request, and even though they may have

been raised in other Discovery Requests, they were unanswered in those requests. It is a consequence of the complexity of this technology and its operation that many aspects are interrelated, and there may be some partial but necessary overlap in some of the requests. Naturally, the Respondent need only respond once to a question comprising a Discovery Request, and does not have to respond to that question again in any subsequent requests in which it may happen to appear, as long as it has already been answered.

2. Overview:

a. In the Pre-Hearing Order issued on December 15, 2017, it was stated that the Complainants bear the burden of proof and must provide a preponderance of evidence.

b. As indicated in Complainants December 30, 2017 Motion to Compel, this matter is dealing with a number of critical issues that are highly complex and technical in nature. This requires that the Respondent's Smart Meter in its Network Mesh be fully, completely, and accurately defined and described. This does not simply mean the manner in which the system is currently being operated in its initial operational deployment phase. It also means the maximum physical, functional, and operational design capability of the Smart Meter in its Network Mesh. In truth and in fact, it takes answers to more than just a few simple questions to achieve the necessary level of understanding and clarity that is required.

c. There are only two sources available for this information:

- the public domain
- the Respondent

The Complainants have gathered and continue to gather what information is available in the public domain; but, there is much about the operation and operational capability of the Smart Meter in its Network Mesh that is unclear, that has been mischaracterized, and/or has been unreported to the general public. As the Respondent is insisting that the public has no choice in the matter, and as the public is being prevented from carrying out and exercising its own independent due diligence and discretion, the only available source for this information, that

can be verified per 52 Pa. Code S 1.36, is the Respondent itself.

And, because of the complicated nature of the technology and its use, there are many questions unfortunately that need to be asked and answered. This is the reality of the matter. It is not something that is being manufactured nor is it a matter of contrivance by the Complainants for some disingenuous purpose. If the Respondent's technology and operation are as harmless, safe, reliable, and secure as it advertises and espouses, there should no problem in answering any of these legitimate Discovery requests.

d. Complainants are not a party to this technology; the Respondent is. Complainants are not promoting and advocating this technology; the Respondent is. Complainants are not deploying this technology; the Respondent is. Complainants have no control of or say in the use of this technology; the Respondent does. Complainants did not request or consent to this technology, and are being told by the Respondent that they have no choice in the matter, irrespective of their rights, circumstances, or preferences. To be fair, Complainants respectfully submit that we cannot be faulted for this circumstance, nor should we be faulted or penalized for simply seeking to discover the answers.

Complainants would have much preferred a situation in which everything could be cleared up with a few simple questions; but, that cannot be done here.

3. PA Utility Code § 1501. Character of service and facilities, states:

Every public utility shall furnish and maintain **adequate, efficient, safe, and reasonable service and facilities**, and shall make all such repairs, changes, alterations, substitutions, extensions, and improvements in or to such service and facilities as shall be necessary or proper **for the accommodation, convenience, and safety of its patrons**, employees, and the public. **(emphasis added)**

The Respondent is responsible for adhering to this code, etc. in all aspects of the design, deployment, use, and operation of its Smart Meter in its Network Mesh. All of the Complainants Discovery requests have a direct bearing on issues of Health, Safety, Reliability, Security, and Privacy, which have all been raised in Complainants Formal Complaint and

subsequent submissions.

4. Listed below are the specific interrogatories from Complainants October 5, 2017 Set #1 of Discovery Requests that remain at least partially or fully unanswered, in which Respondent's responses are incomplete, unclear, and deficient, and the primary discovery areas of Health (RF or LF exposure), Safety, Reliability, Security, and Privacy to which they relate:

- | | |
|---|---|
| 5. Discovery Request 1. e. - Health | 25. Discovery Request 6. e. - Safety, Reliability |
| 6. Discovery Request 1. f. - Health | 26. Discovery Request 6. f. and g. - Safety, Reliability |
| 7. Discovery Request 1. h. - Health | 27. Discovery Request 6. i. - Safety, Reliability |
| 8. Discovery Request 1. h. i. and ii. - Health | 28. Discovery Request 6. j. - Safety, Reliability |
| 9. Discovery Request 1. h. iii. - Health | 29. Discovery Request 6. m. - Safety, Reliability |
| 10. Discovery Request 1. i. - Health | 30. Discovery Request 9. a. i. - Safety, Reliability |
| 11. Discovery Request 1. j. ii. - Health | 31. Discovery Request 9. b. i. - Safety, Reliability |
| 12. Discovery Request 1. l. - Health | 32. Discovery Request 9. b. ii. - Safety, Reliability |
| 13. Discovery Request 1. r. - Health | 33. Discovery Request 9. b. iv. - Safety, Reliability |
| 14. Discovery Request 1. t. ii. - Health | 34. Discovery Requests 9. d. ii., iii., iv. - Safety, Reliability |
| 15. Discovery Request 1. u. - Health | 35. Discovery Request 12. b. - Safety, Reliability |
| 16. Discovery Request 3. and 3. a. - Health | 36. Discovery Request 18. - Privacy, Security |
| 17. Discovery Request 3. b. - Health | 37. Discovery Request 18. a. - Privacy, Security |
| 18. Discovery Request 3. c. - Health, Safety | 38. Discovery Request 18. c. - Privacy, Security |
| 19. Discovery Request 3. d. - Safety, Reliability | 39. Discovery Request 18. d. - Privacy, Security |
| 20. Discovery Request 3. e. - Health | 40. Discovery Request 18. e. - Privacy, Security |
| 21. Discovery Request 3. e. ii. - Safety, Reliability | 41. Discovery Request 18. h. - Privacy, Security |
| 22. Discovery Request 6. a. - Safety, Reliability | 42. Discovery Requests 5.; 8.; 11.; 14.; 17.; 20. - All |
| 23. Discovery Request 6. c. - Safety, Reliability | 43. Discovery Request 21. - All |
| 24. Discovery Request 6. d. - Safety, Reliability | 44. Discovery Request 22. - All |

In the remainder of this document, each specific interrogatory above is addressed in turn and in detail with regard to the incompleteness and insufficiency of the Respondent's responses.

SPECIFIC INTERROGATORIES/REQUESTS
THAT ARE INCOMPLETE AND/OR INSUFFICIENT

5. Complainants October 5, 2017 Set #1 Discovery Request 1. e. (page 5):

What is the exact Transmission Burst Time interval of each version of Your SK9AMI7?

Discovery Area of Concern: Operation, Transmissions, Health Consequences

Respondent's November 20, 2017 response (pages 3 and 4):

*The OpenWay network deployed within Duquesne Light's service territory operates as a frequency-hopping, mesh network. When transmitting, each device will transmit for **up to 150 milliseconds** in each time slot. (emphasis added)*

Issue with Respondent's response: Incomplete and insufficient.

"Up to 150 msec" does not completely address and answer the question asked. This is simply the maximum (i.e. largest) pulse time interval. Independent experts have reported that Transmission Frequencies and Burst Time Intervals have a bearing on RF exposure. Respondent's answer indicates that there are smaller pulse time intervals (i.e. a spectrum of time intervals) without defining specifically what those are.

- a. To be clear and complete, please list all pulses, their pulse time intervals, and how frequently each type of pulse occurs?
- b. Specifically, what is the minimum (i.e. smallest) pulse time interval?
- c. Specifically, what is the average pulse time interval?
- d. Specifically, what is the mode (i.e. most frequently occurring) pulse time interval?

ANSWER:

6. Complainants October 5, 2017 Set #1 Discovery Request 1. f. (page 5):

What is the complete Duty Cycle range (minimum, average, maximum) of each version of Your Smart Meter (the SK9AMI7), and their corresponding Transmission Times in 24 hours (900 MHz, 2.4 GHz)?

Discovery Area of Concern: Operation, Transmissions, Health Consequences

Respondent's November 20, 2017 response (page 3):

The transmit duty cycle for the 900MHz radio within the OpenWay network deployed within Duquesne Light's service territory will vary based on a number of factors, including, but not limited to, where in the mesh network topology the meter is located, the quality of the radio links to neighboring meters, and the level of interference present. Therefore, the most accurate way to estimate the transmit duty cycle is from a statistically significant sample of a representative deployment. The table below shows the Mean, Maximum, Minimum and Median transmit duty cycle for a sample of approximately 7,000 meters over a representative 24-hour window of operation.

	<u>Duty Cycle</u>	<u>Time</u>
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

The OpenWay meter's 2.4GHz Zigbee radio communicates with other HAN (Home Area Network) devices. The table below shows the measured transmission times for an idle Zigbee radio and a Zigbee radio with one of two sample devices joined to the meter. Duquesne Lights expects that, for current deployments, the average meter will have either zero (idle) or one HAN device attached to it.

	<u>Duration of transmission in a 24-hr period</u>	<u>Duty Cycle</u>
Idle Zigbee Radio (no devices joined)	9.9 seconds	0.01%
Meter with Tendril IHD (In Home Display)	132 seconds	0.15%

Issue with Respondent's response: Incomplete and insufficient.

This response is incomplete and does not fully answer the question. Respondent does not provide the requested information related to maximum operational performance capability. And, the Respondent does not identify the Read Schedule associated with the numbers it did provide. Smart Meter Read Schedules, Duty Cycles, and Transmissions are all related and interrelated. They are not independent of each other. This is relevant and has a bearing on potential RF exposure.

Smart appliances have yet to be introduced into the home environment in a significant way, but that is what is planned for the future. The Public Utility Commission's Implementation Order Docket No. M-2009-2092655 states that EDC's Smart Meter technology must provide the capability to record 15 minute or shorter interval electric consumption data. This is not reflected in the response that the Respondent provided.

The Complainants question specifically asked for the Respondent to indicate the complete Duty Cycle range of its Smart Meter which includes the maximum capability of its Smart Meter in its Smart Grid, not only what is currently measured or sampled in the current deployment environment. As this directly relates to Health and Privacy, it is a relevant factor and a legitimate area for Discovery. This is not a hypothetical. If it is known or predictable, it is not a hypothetical.

So, Complainants request again, what is the maximum Duty Cycle design capability of the Respondents SK9AMI7 Smart Meter in its Network Grid?

Further, please identify the Read Schedule associated with the numbers it did provide?

ANSWER:

7. Complainants October 5, 2017 Set #1 Discovery Request 1. h. (page 6):

How many times/transmissions in total (average, maximum) for any purpose is each version of Your Smart Meter configured to transmit during a 24-hour period (900 MHz, 2.4 GHz)?

Discovery Area of Concern: Operation, Transmissions, Health Consequences

Respondent's November 20, 2017 response (page 4):

*This will vary depending on business process, which will determine how read schedules are set up. Typically, there are 3 to 4 scheduled reads from each meter in a 24-hour period. With a hierarchical cell structure, meters will relay upstream and downstream traffic within the RF mesh. The total number of transmissions will include the scheduled reads, on-demand reads, and alarms/alerts along with the network traffic needed for command and control (synchronization, security, data integrity and dynamic network resiliency). Based on data gathered from a large, representative OpenWay network deployment (2 load profile reads + 1 register read + 1 event read per day), the total transmissions are: **(emphasis added)***

- *The **average** number of transmissions in a 24-hour period is approximately **1,268** (less than 1 time/minute); **(emphasis added)***
- *The **maximum** number of transmissions in a 24-hour period is approximately **25,916** (18 times/minute or about once every 3.3 seconds); **(emphasis added)***
- *Looking at the distribution of the field data gathered, only a small percentage of the meter population will transmit near the maximum value. In fact, 97% of the meters in this random sample transmitted less than 2,500 times in a 24-hour period.*

Issue with Respondent's response: Incomplete and insufficient.

The Respondent's response is incomplete. Also, here and throughout Respondent's

responses to Complainants Set #1 Discovery Requests, Respondent uses the vague and undefined term "*business process*" which is one of the factors affecting/controlling Read Schedules, Duty, Cycles etc. The Complainants have provided those interrogatories herein where this issue has occurred. Smart Meter Read Schedules, Duty Cycles, and Transmissions are all related and interrelated. They are not independent of each other. The operation of the SK9AMI7 Smart Meter is programmable and under the direct remote control of the Respondent, without any notification to or awareness of the homeowner. As this directly relates to Health (RF exposure) and Privacy, it is a relevant factor and a legitimate area for Discovery.

To resolve these issues:

- a. What specific business processes would affect/control/change the Smart Meter
 - Read Schedule?
 - Duty Cycle?
- b. No Duty Cycle or Read Schedule is provided for the 1,268 number.
What is the Duty Cycle and Read Schedule associated with this number?
- c. No Duty Cycle or Read Schedule is provided for the 25,916.
What is the Duty Cycle and Read Schedule associated with this number?

ANSWER:

8. Complainants October 5, 2017 Set #1 Discovery Request 1. h. i. (page 6):

How many of those times (average and maximum) are to transmit electric usage information?

Respondent's November 20, 2017 response (page 5):

*This will vary depending on **business process**, which will determine how read schedules are set up. Typically, there are **2 or 3 scheduled reads for usage data from each meter in a 24-hour period. (emphasis added)***

Complainants October 5, 2017 Set #1 Discovery Request question 1. h. ii. (page 6):

How many of those times (average and maximum) are for other purposes? What are those other purposes?

Respondent's November 20, 2017 response (page 5):

This will vary with **business process**, which will determine how read schedules are set up. Typically, there are **2 or 3 scheduled reads for purposes other than returning usage data from each meter in a 24-hour period**. These are typically for doing a register read and/or events read. The balance of the transmissions are for network command and control: synchronization, security, data integrity and dynamic network resiliency. (**emphasis added**)

Discovery Area of Concern: Operation, Transmissions, Health Consequences

Issue with Respondent's response: Vague undefined term, discrepancy in numbers.

Respondent again uses the vague and undefined term "*business process*" which must be explained. Further, Respondent states that there are typically "2 or 3 scheduled reads for usage data" and "2 or 3 scheduled reads for purposes other than data usage." Taken together, this indicates that there are typically 4 to 6 scheduled reads from each meter in a 24-hour period. This number is inconsistent with Respondent's prior response. As this directly relates to Health (RF exposure) and Privacy, it is a relevant factor and a legitimate area for Discovery.

To resolve this discrepancy, and these issues:

a. Please name all specific business processes that would affect/control the Smart Meter Read Schedule for usage data and for purposes other than usage data?

ANSWER:

b. To further clarify and prevent any misunderstanding, with regard to Read Schedules, etc. and business processes, can each individual Smart Meter on a homeowner's residence be programmed with

- its own individual Read Schedule (yes/no)?
- its own individual Duty Cycle (yes/no)?
- its own individual Electricity Usage Data Measurement Interval (yes/no)?
- what if any other parameters can be selectively programmed on the Smart Meter on a homeowner's residence?

ANSWER:

c. The typical number of Scheduled Reads from each meter in a 24-hour period is 3 to 4 in the Respondent's response in Para. 7 page 10. herein (Complainants October 5, 2017 Set #1 Discovery Request 1. h.), and now is indicated to be 4 to 6?¹ This is inconsistent. Which numbers are correct? How is one to know that these new numbers are correct and accurate numbers?¹

ANSWER:

d. To be very specific, Complainants again request the average number of Scheduled Reads in a 24-hour period:

- for each meter, in total?
- for each meter, for usage data?
- for each meter, for purposes other than data usage?

ANSWER:

e. And, to further clarify and prevent any misunderstanding, the Respondent has indicated that read schedules and meter transmissions can be changed by the Respondent due to its business decisions, which can change at any time and for any number of reasons unbeknownst to the homeowner. As this directly relates to Health (RF exposure) and Privacy, it is a relevant factor and a legitimate area for Discovery. So, it is necessary to know the maximum and full design capability of the Respondent's Smart Meter and its Network Mesh to understand its full effect and impact. In this regard, Complainants again request the maximum number of Scheduled Reads possible (i.e the maximum Scheduled Read design

¹ Note: (As a career engineer, when inconsistencies in numbers occur, there is a standard protocol that is followed to rectify the situation. The correct number must be determined. The correct number may be one of the numbers already provided, or all of the provided numbers may be wrong and a new number is the correct number. Whatever case occurs, the finally determined correct number must be proven to be the true correct number, and shown to be not just another bad number. The inconsistent numbers must be explained, and the final correct number must be verified. This is the situation here. And, this is what necessitated the indicated questions to ensure that this inconsistency would truly be resolved.)

capability of the Smart Meter, the highest Scheduled Read rate it can achieve), in a 24-hour period:

- for each meter, in total?
- for each meter, for usage data?
- for each meter, for purposes other than data usage?

ANSWER:

9. Complainants October 5, 2017 Set #1 Discovery Request 1. h. iii. (page 6):

What are the number of times (average and maximum) by type/category of transmission?

Discovery Area of Concern: Operation, Transmissions, Health Consequences

Respondent's November 20, 2017 response (page 5 and 6):

Detailed analysis of the type/category of transmissions has not been completed. One data point from the gathered field data is that, on average, the segmentation between meter data transmissions (scheduled and/or on-demand) and network command and control (synchronization, security, data integrity and dynamic network resiliency) is expected to be:

- *Transmissions of meter data: 10%*
- *Transmissions for network command/control: 90%*

Issue with Respondent's response: Interrogatory is essentially unanswered.

a. Complainant asked for number of transmissions in a 24-hour period, not percentage segmentation. Complainant did not answer the question that was asked. Respondent started deploying the meters in 2014 (i.e. 4 years ago), and has deployed more than half of its meters at this point (numbering in the 100s of thousands), and it provides transmission numbers in previous responses herein. The Respondent has been monitoring and managing their behavior in the field throughout this period. The Respondent has stated that it seeks to complete full deployment by the end of this year. Yet, Respondent surprisingly says that it can provide no specific data. The Respondent simply states that a *"detailed analysis of the type/category of transmissions has not been completed."* This would imply that the Respondent does not possess full knowledge of how its Smart Meters and Network Mesh are operating. Complainants can only ask, is this truly the case?

- When will this “detailed analysis” be carried out?
- What are the 24-hour transmission numbers that Respondent does have?

b. Furthermore, the maximum design capability of the smart meter and its network

mesh has to be known by the Respondent.

- What is the maximum number of transmissions in 24-hours that the Smart Meter is capable of executing?

ANSWER:

10. Complainants October 5, 2017 Set #1 Discovery Request 1. i. (page 6):

Under what scenarios does each version of Your Smart Meter transmit outside of the daily schedule, i.e., transmissions such as on-demand reads, tamper/theft alerts, last gasps, firmware upgrades, etc.?

Discovery Area of Concern: Operation, Transmissions, Health Consequences

Respondent's November 20, 2017 response (page 6):

Duquesne Light cannot reasonably determine what information is sought by the “etc.” abbreviation and provides the following information in response to the remaining portions of Discovery Request #1(i):

- *On-Demand Reads: These reads are outside of the daily read cycle and will be fully dependent on **business processes**. Each On-Demand read will generate one downstream and one upstream packet with average transmission duration of 125mSec. (**emphasis added**)*
- *Network Synchronization: The nature of an RF mesh network requires that meters maintain communications with their neighbor meters to ensure the stability, self-healing and integrity of the network. A good example of this is timing synchronization where meters send their neighbor meters time-synchronization packets at regular intervals to ensure all of the devices in the network are synchronized for time slot usage. **Time-synchronization packets are sent approximately every 93 seconds with average transmission duration of 18 mSec.***

...

Issue with Respondent's response: It is incomplete.

Respondent's set of answers is summarized in the table below:

Type	Duration	Frequency
Network Synchronization	avg transmission duration = 18 mSec	approx every 93 sec
Last Gasp	avg transmission duration = 18 mSec	3 messages for each power outage
Tamper/Theft Alerts	avg transmission duration = 18 mSec	1 packet for each detected event
On-Demand Reads	avg transmission duration = 125 mSec	dependent on business processes
Firmware Download	approx broadcast transmission = 150 mSec	once a year, over a 12 hr - 12 day period

- a. Respondent again uses the vague and undefined term “business processes” which must be explained.
- What business processes would affect/control/change the On-Demand Reads?
 - What is the specific purpose of On-Demand Reads?
 - What is the maximum frequency at which On-Demand Reads can be carried out?

b. Respondent lists 5 types of transmissions namely: On-Demand Reads, Tamper/Theft Alerts, Last Gasp, Firmware Download, and Network Synchronization. Each has a different transmission duration and frequency occurrence. Network Synchronization appears to be the most frequently occurring of these transmissions, and has one of the shortest duration transmission lengths. Only an approximate frequency interval of 93 seconds was provided.

- Is Network Synchronization the most frequently occurring transmission (yes/no)?
- If not, what is the most frequently occurring transmission?
- What is the maximum frequency that the Network Synchronization transmissions can be programmed to occur?

c. Respondent's response to Complainants October 5, 2017 Set #1 Discovery Request question 1. h. ii. (page 6), (See Para. 8, page 12 herein), listed the following additional types of transmissions in addition to Network Synchronization: Security, Data Integrity, and Dynamic Network Resiliency. Transmission duration and frequencies are not provided for these categories of transmission.

The Respondent claims it “cannot reasonably determine what information is sought by the ‘etc.’ abbreviation.” This statement is evasive, as the reasonable interpretation is “the remaining other types of transmissions that occur that are not specifically listed.” And, as stated above, no specifics are provided concerning these additional types of transmissions as they are with Network Synchronization, Last Gasp, Tamper/Theft Alerts, On-Demand Reads, and Firmware Download, which the

Complainants specifically cited. To further clarify the question for the Respondent:

- What are the Transmission Durations and Frequencies, and the maximum frequencies that transmissions can be programmed, for:

Security?

Data Integrity?

Dynamic Network Resiliency?

Any other types of transmissions that remain that have not specifically been identified by the Respondent?

d. Respondent has acknowledged that the Smart Meter produces different types of transmissions for different purposes.

- If not already stated, of all the transmissions that the Smart Meter produces, what is the most frequently occurring type of transmission?
- If not already described, please provide the duration, frequency, and maximum possible frequency for the most frequently occurring transmission?

ANSWER:

11. Complainants October 5, 2017 Set #1 Discovery Request 1. j. ii. (page 6):

Typically, how much of the communication between the customer's Smart Meter and other Smart Meters in the customer's area grid is unscheduled vs. scheduled?

Discovery Area of Concern: Operation, Transmissions, Health Consequences

Respondent's November 20, 2017 response (page 7):

*The majority of the communications between the customer's meter and the utility is based on **scheduled data requests** (interval data read, register reads, events read, network statistics read). The amount of communication for on-demand reads and events will be highly dependent on **business processes** and the **environment of the deployment** (e.g., outage and tamper events). The **network overhead** does not represent communication between a meter and the utility (i.e., does not route back to the head end system). These overhead transmissions are required for the proper operation of the dynamic, self-healing RF mesh. The 53 seconds that an **average OpenWay meter** transmits in one day includes all of the communications described above. (**emphasis added**)*

Issue with Respondent's response: It is incomplete and insufficient.

There are a number of vague undefined references here that require explanation.

- a. Respondent sets the schedule for data requests. Scheduled data requests are at the discretion and control of the Respondent, and unbeknownst to the homeowner.
 - If not already stated, what are the maximum number of data requests that the Respondent can schedule in a 24-hour period?
- b. Respondent again uses the vague and undefined term “*business processes.*”
 - If not already stated, what specific business processes affect/control/change the amount of communication required from a Smart Meter?
- c. Respondent uses the new, undefined, and broad term “*environment of the deployment*” and provides only 2 examples “*outage events*” and “*tamper events*”.
 - What other factors comprise the “*environment of the deployment*”?
 - Does the location of the Smart Meter in the Network Mesh affect its operational environment and behavior (yes/no)? If so, how?
 - Does proximity to the utility data repeaters and routers that route the data back to the “*head end system*” affect the operational environment and behavior of the Smart Meter (yes/no)? If so, how?
- d. Respondent uses the term “*average OpenWay meter.*”
 - What specific factors determine whether a homeowner's Smart Meter behaves (collects, transmits, etc.) as an “*average OpenWay meter*” or behaves (collects, transmits, etc.) as the part of meter population operating at or near the maximum levels?
 - If not already provided, what are the maximum number of transmissions (i.e. its maximum operational design capability) a Smart Meter is capable of performing in a 24-hour period?

ANSWER:

12. Complainants October 5, 2017 Set #1 Discovery Request 1. I. (page 6):

What is the amount of RF emission at the source of each version of Your Smart Meter when Your Smart Meter is transmitting data (instantaneous maximum peak level, averaged over 30 minutes)?

Discovery Area of Concern: Operation, Transmissions, Health Consequences

Respondent's November 20, 2017 response (page 8):

The limits for Maximum Permissible Exposure (MPE) established by the FCC account for a 20cm distance from the source to the measurement point. The RF emissions for the OpenWay meters deployed by Duquesne Light without this 20cm distance (at the antenna source) are:

900 MHz LAN Radio

- *Transmitter Conducted Power: 28.38dBm, 688.65mW*
- *Antenna Gain: 2.2dBi*
- *Maximum System EIRP: 30.58dBm, 1142.88mW*
- *With 1 percent duty cycle over 30 minute interval: 1.143mW*

2.4GHz Radio

- *Transmitter Conducted Power: 18.13dBm, 65.01mW*
- *Antenna Gain: 3.8dBi*
- *Maximum System EIRP: 21.93dBm, 155.96mW*
- *With 1 percent duty cycle over 30 minute interval: 1.56mW*

Note: The maximum observed duty cycle was 0.58%. This has been rounded up to 1 percent.

Issue with Respondent's response: It is incomplete.

Respondent provided data for a 1% Duty Cycle. This is not the maximum possible Duty Cycle (i.e. the maximum design capability) of the Respondent's Smart Meter as originally requested.

- Please provide the results for the maximum Duty Cycle possible (i.e. the maximum design capability) of the Respondent's Smart Meter.

ANSWER:

13. Complainants October 5, 2017 Set #1 Discovery Request 1, r. (page 7):

Since the SK9AMI7 is programmable, what control methods and capabilities do You have to change, adjust, or modify the Duty Cycle of the SK9AMI7 either directly or remotely?

Discovery Area of Concern: Operation, Transmissions, Health Consequences

Respondent's November 20, 2017 response (page 9):

*The **Duty Cycle** of the Itron OpenWay meters has been established using a large population of deployed meters with a typical daily read schedule to ensure validity. **This read schedule can be modified.** Studies have not been undertaken to quantify the difference in Duty Cycle when the read schedule of the meters is modified. The expectation is that there will be minimal variance in the Duty Cycle with typical changes to read schedules. (**emphasis added**)*

Issue with Respondent's response: It is incomplete.

In lieu of the data that the Respondent states it does not know:

- a. If not already stated, what are the maximum number of Scheduled Reads possible, i.e the maximum Scheduled Read design capability of the Smart Meter, the highest Scheduled Read rate it can achieve, in a 24-hour period?

- b. If not already stated, what is the maximum Duty Cycle possible, i.e. the maximum Duty Cycle design capability of the Respondent's Smart Meter, the highest Duty Cycle that it can achieve?

ANSWER:

14. With regard to the Switch-Mode Power supply that supplies power to Respondent's Smart Meter, Complainants October 5, 2017 Set #1 Discovery Request 1. t. ii. (page 7):

What voltage spiking, harmonics, additional loads and stresses does this introduce onto the customer's household interior electrical wiring?

Discovery Area of Concern: Operation, Health Consequences, Safety, Reliability

Respondent's November 20, 2017 response (page 10):

Interior electrical wiring is the responsibility of the customer and/or homeowner and can vary by location. The smart meters being installed within Duquesne Light's service territories comply with the limits established by the FCC and have been validated by several outside laboratories, including UL.

Issue with Respondent's response: The question is unanswered.

Respondent did not ask anything about responsibility. Respondent asked what voltage spiking, harmonics, i.e. new and additional loads and stresses does its Smart Meters introduce onto the customer's household interior electrical wiring, due to the operation of its Switch-Mode Power supply? This question was not answered.

- a. Does the Respondent's Smart Meter Switch-Mode Power supply introduce different loads and harmonics onto the customer's household interior electrical wiring than the standard electro-mechanical analog meter (yes/no)?
- b. If yes, describe these new loads and harmonics, and how they are different?

ANSWER:

15. With regard to the Switch-Mode Power supply that supplies power to Respondent's Smart Meter, Complainants October 5, 2017 Set #1 Discovery Request 1. u. (page 8):

Do you provide the customer/homeowner with the option to disable the 2.4GHz Zigbee Transceiver?

Discovery Area of Concern: Operation, Transmissions, Health Consequences, Privacy

Respondent's November 20, 2017 response (page 10):

No.

Issue with Respondent's response: Requires clarification.

The 2.4 GHz Zigbee Transceiver is unrelated to the Respondent's ability to collect customer electric usage data. Other EDCs provide their customers with the option to have this feature disabled.

- What is the reason why the Respondent does not provide its customers with this option?

ANSWER:

16. Complainants October 5, 2017 Set #1 Discovery Request 3. and 3. a. (page 9):

State all facts that support Your claim that Duquesne Light's installation of a Smart Meter at the Property will not negatively affect the health and/or medical condition(s) of Michele Hriadil, Francis Hriadil, and/or any pets or animals, and/or any visitors including but not limited to the elderly, children, babies, pregnant mothers and their fetuses, etc.

- a. *What analyses, if any, did You carry out to ensure that the Radiofrequency (RF) radiation, and Low Frequency (LF) radiation induced by the Switch-Mode Power supply, from Your wireless Smart Meter system would be safe for all of Your customers, and those living at or visiting their Property?*
 - i. *If You did not carry out any analyses, how then did You establish that Your wireless Smart Meter system is safe for all of Your customers, and those living at or visiting their Property?*

Discovery Area of Concern: Operation, Transmissions, Health Consequences

Respondent's November 20, 2017 response (pages 11 and 12):

Duquesne Light is required by law to install smart meters throughout its service territory, which includes Complainants' home. The company's smart meter procurement and implementation plan has been approved by the Pennsylvania Public Utility Commission, which is prima facie evidence that it is safe, reasonable, and in compliance with the law. Furthermore, the smart meters being installed in Duquesne Light's service territory meters are compliant with the applicable FCC regulations for both intentional and unintentional radiation.

Issue with Respondent's response: The question is unanswered.

Respondent's answer does not specifically address the questions asked.

- To clarify the Respondent's answer, has the Respondent done anything beyond what is stated in its response above to address the specifics raised in the questions (yes/no)?
- If yes, what was done?

ANSWER:

17. Complainants October 5, 2017 Set #1 Discovery Request 3. b. (page 9):

Did your analysis/assessment consider the Radiofrequency (RF) radiation from a single wireless Smart Meter, or the radiation from all components of Your wireless Smart Meter system including

- i. all wireless Smart Meters in a community?*
- ii. all intermediate wireless relay devices in a community such as any wireless Collector Smart Meters and Repeaters?*
- iii. all wireless Transmitters/Receivers required to communicate between the intermediate wireless relay devices and Duquesne Light or its agents?*

Discovery Area of Concern: Operation, Transmissions, Health Consequences

Respondent's November 20, 2017 response (page 12):

*As required by the FCC, Itron assessed all of the active radios within the device. As with any other FCC-compliant device, **Duquesne Light is not responsible for deployment of other devices in proximity of the meters.** Itron has published a white paper that specifically addresses the levels of RF exposure from meter banks: "The Facts on RF Exposure from Meter Banks." A key factor highlighted in this paper is that the RF levels fall off very quickly over distance. This results in minimal additive levels of RF exposure from multiple devices in a given area. **(emphasis added)***

Issue with Respondent's response: The question is unanswered.

Respondent's answer does not fully address the specifics of the question that was asked, and is confusing.

- Is Respondent responsible for the deployment of all devices comprising its Network Mesh in a community, which is more than just its Smart Meters (yes/no)?
- Does Respondent deploy its Smart Meters irrespective of what other RF devices (including but not limited to other Smart Meters) are in proximity of the meters (yes/no)?

ANSWER:

18. Complainants October 5, 2017 Set #1 Discovery Request 3. c. (page 10):

Recognizing that the science indicates there are many conditions that can affect and influence Radiofrequency radiation levels in the home environment, does Your installation account for: ...

Discovery Area of Concern: Operation, Transmissions, Health Consequences, Safety

Respondent's November 20, 2017 response (page 12):

Before responding to each individual request below, Duquesne Light notes that this request is

*not only argumentative, but also overly broad with respect to **what it contends that "science" indicates. Furthermore, Duquesne Light exercises responsibility for its equipment, but customers and/or homeowners are responsible for the internal circuitry and appliances that are located within a particular structure. (emphasis added)***

Issue with Respondent's response: It is incomplete and insufficient.

Respondent is dismissive of the question, and its answer is unclear.

- a. Concerning Respondent's statement about "science",
 - Does the Respondent deny that RF radiation can be absorbed, re-admitted, refracted, reflected, and/or refocused by materials, both natural and man-made, that are generally present in the environment and in the home (yes/no)?
 - If no, does the Respondent then deny that this can affect and influence RF radiation inside and outside of the home environment (yes/no)?
- b. Concerning Respondent's statement about deployment and responsibility,
 - When the Respondent removes the homeowner's current meter and replaces it with their Smart Meter, the only element of the homeowner's electrical service and environment being changed is the installation of the new Smart Meter (yes/no)?
 - The new Smart Meter installed by the Respondent is solely the responsibility of the Respondent (yes/no)?
 - Are homeowners asked to change or modify their internal circuitry and/or appliances prior to the installation of the new Smart Meter (yes/no)?
 - Are the responsibilities of the homeowner concerning their meter box, their home's electrical circuitry, and their appliances reviewed with the homeowner prior to the installation of the new Smart Meter (yes/no)?

ANSWER:

19. Complainants October 5, 2017 Set #1 Discovery Request 3. d. (page 10):

What if anything is taken into account concerning the installation of Your Smart Meter?

Discovery Area of Concern: Operation, Transmissions, Safety and Reliability

Respondent's November 20, 2017 response (page 13):

This request is so vague that Duquesne Light cannot be reasonably expected to form a complete response, but Duquesne Light considers safety, reliability, and efficiency when installing smart meters throughout its service territory.

Issue with Respondent's response: It is incomplete and insufficient.

Complainants requested the specifics of what is taken into account concerning the installation

of the Smart Meter. Respondent's answer was vague, and did not supply any specifics.

- How and to what degree is safety taken into account when installing the Smart Meter?
- How and to what degree is reliability taken into account when installing the Smart Meter?
- What does the Respondent mean by "efficiency", and how and to what degree is efficiency taken into account when installing the Smart Meter?

ANSWER:

20. Complainants October 5, 2017 Set #1 Discovery Request 3. e. (page 10):

Are customers/homeowners provided with any written notice of the dangers and inherent risks associated with being in close proximity to Your Smart Meter on a regular basis?

Discovery Area of Concern: Operation, Transmissions, Health Consequences

Respondent's November 20, 2017 response (page 14):

This request is argumentative and Duquesne Light disagrees with the premise of this request, which is that there is a danger and/or inherent risk of being in some undefined "close proximity" to the smart meters being installed throughout its service territory.

Issue with Respondent's response: The question is unanswered.

The FCC GRANT OF EQUIPMENT AUTHORIZATION states,

"The transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. Installers and end-users must be provided with transmitter operation conditions for satisfying RF exposure compliance."

Instead of answering the question, Respondent dismisses the question. It is a simple yes or no question.

- Does the Respondent provide the customer/homeowner with any written notice regarding possible consequences of being in close proximity (less than 20 cm) to their Smart Meter on a regular basis (yes/no)?
 - If the answer is yes, what does that notice say?
 - If the answer is no, is that because the Respondent avers that there are no consequences to being in close proximity (less than 20 cm) to their Smart Meter on a regular basis (yes/no)?
- Does the Respondent install the new Smart Meter irrespective of its proximity to human activity near the Smart Meter's location (yes/no)?

ANSWER:

21. Complainants October 5, 2017 Set #1 Discovery Request 3. e. ii. (page 10):

Are there warning labels on Your Smart Meters?

Discovery Area of Concern: Operation, Transmissions, Safety and Reliability

Respondent's November 20, 2017 response (page 14):

The Smart Meter contains a standard message that warns against introducing currents at voltages above the meter's design tolerance.

Issue with Respondent's response: The response is insufficient and unsubstantiated.

Complainants examined the Smart Meters deployed in his neighborhood. No such warning Message is clearly displayed on the Smart Meter. No such warning message was received by the Complainants in any material received from the Respondent concerning the installation of the new Smart Meter.

- Where is this standard message, how is it provided to the customer/homeowner, and what specifically does this standard message say?
- What are the maximum currents and/or voltages that the Respondent's Smart Meter's design can tolerate, as the Complainants have never been informed of this?
- Have voltage surges occurred on the utility side in the past that introduce currents and/or voltages that exceed this maximum voltage design tolerance (yes/no)?

ANSWER:

22. Complainants October 5, 2017 Set #1 Discovery Request 6. a. (page 12):

What are the physical elements, components, and materials used in the construction of Your electrical Smart Meter? Electronic components? Circuit boards? Flammable materials?

Discovery Area of Concern: Operation, Safety and Reliability

Respondent's November 20, 2017 response (page 15 and 16):

The terms used in this request are vague. Duquesne Light offers the following table, which lists the common material used in the HW 3.1 OpenWay CENTRON meter:

CEN-II

Component

Material

Base and Switch Cover

PET RYNITE FR 515

Outer Cover, Inner Covers, OEM
Support and Register Display

Polycarbonate

Electrical components; resistors, capacitors, diodes, transistors, integrated chips (IC)

Common supported materials used to manufacture electrical components

Printed Circuit Boards

Fiberglass epoxy resin with copper foil

Issue with Respondent's response: Respondent's answer is incomplete.

- Are any of these components or materials flammable (yes/no)?

ANSWER:

23. Complainants October 5, 2017 Set #1 Discovery Request 6. c. (page 12):

Can overheating of the electronic components and flammable materials inside of Your Smart Meters cause the components to degrade, expand, "pop", smoke, burst into flame, burn, and/or explode, with a single occurrence or repeatedly over time?

Discovery Area of Concern: Operation, Safety and Reliability

Respondent's November 20, 2017 response (page 16):

Duquesne Light cannot and will not speculate as to what might happen to the components of a smart meter based on a vague and unidentified set of facts. As noted by the responses to the preceding Discovery Requests, the smart meters being installed in Duquesne Light's service territory fall within the limits established by the FCC, have been tested and approved by UL, and the company's smart meter procurement and implementation plan has been approved by the Pennsylvania Public Utility Commission, which is prima fade evidence that it is reasonable, safe, and in compliance with the law.

Issue with Respondent's response: The question is unanswered.

Respondent refused to answer the question, which requires a simple yes or no answer.

This question is not speculation nor is it hypothetical. Electronic components have known physical behaviors when they fail. Flammable materials burn when they are overheated. Respondent's failure to acknowledge this is an evasion.

To clarify and be as specific as possible, Complainants again request:

- Can overheating of the electronic components and flammable materials inside of Respondent's Smart Meters cause the components to:
 - degrade, with a single occurrence or repeatedly over time (yes/no)?
 - expand or deform, with a single occurrence or repeatedly over time (yes/no)?
 - "pop", with a single occurrence or repeatedly over time (yes/no)?

- smoke, with a single occurrence or repeatedly over time (yes/no)?
- ignite and burn, with a single occurrence or repeatedly over time (yes/no)?
- and/or explode, with a single occurrence or repeatedly over time (yes/no)?

ANSWER:

24. Complainants October 5, 2017 Set #1 Discovery Request 6. d. (page 12):

Does Your Smart Meter contain anything to warn the homeowner of overheating, fire danger, or explosion?

Discovery Area of Concern: Operation, Safety and Reliability

Respondent's November 20, 2017 response (page 16):

The Smart Meter contains a standard message that warns against introducing currents at voltages above the meter's design tolerance.

Issue with Respondent's response: The question is unanswered.

Respondent refused to answer the question that was asked, which requires a simple yes or no answer. Respondent refers to a "standard message" about currents and voltages which has nothing to do with the question asked. Again, Complainants request,

- Does the Respondent's Smart Meter contain anything to warn the homeowner of overheating, imminent fire danger, or imminent explosion? (yes/no)?
- If the answer is yes, where is this message, how is it provided to the customer/homeowner, and what specifically does this message say?

ANSWER:

25. Complainants October 5, 2017 Set #1 Discovery Request 6. e. (page 12):

Has destructive testing been carried out on Your Smart Meter?

- i. *If so, what were/are the failure modes/mechanisms? What were/are the occurrences of overheating, smoking, burning, popping, and explosions when the Smart Meter components are overstressed?*
- ii. *If not, how do you know what the failure modes of Your Smart Meters are, and how do you know they are safe?*

Discovery Area of Concern: Design, Operation, Safety and Reliability

Respondent's November 20, 2017 response (page 16):

This question is so vague that Duquesne Light cannot reasonably be expected to form a complete response.

Issue with Respondent's response: The question is unanswered.

Respondent refused to answer the question, which requires a simple yes or no answer, with a follow-up explanation. The question is neither vague nor unreasonable. Failure mode analysis² is a standard practice in industry. It is a step-by-step procedure for identifying all possible failure mechanisms in a design, a manufacturing or assembly process, or a product or service.

Again, Complainant requests:

- Has destructive testing been carried out on Respondent's Smart Meter (yes/no)?
If yes, what were/are the failure modes/mechanisms? What were/are the occurrences of overheating, smoking, burning, popping, and explosions when the Smart Meter components are overstressed?

ANSWER:

26. Complainants October 5, 2017 Set #1 Discovery Request 6. f. and g. (page 12):

- 6. f. *Does Your Smart Meter provide Circuit Breaker protection for the homeowner?*
- 6. g. *Does Your Smart Meter provide Surge Arrestors designed to withstand and protect the homeowner's internal electrical system and connected appliances from large voltage surges and other events originating on the utility-side electrical grid?*

Discovery Area of Concern: Design, Operation, Safety and Reliability

Respondent's November 20, 2017 response (page 16):

No. Protection of the internal electrical circuitry and appliances are the responsibility of the customer and/or homeowner. See section 13 of Duquesne Light's tariff and the associated electric service installation rules, both of which are being produced. (emphasis added)

²Failure mode analysis is applied when a process, product or service is being designed or redesigned, after quality function deployment; when an existing process, product or service is being applied in a new way; before developing control plans for a new or modified process; when improvement goals are planned for an existing process, product or service; when analyzing failures of an existing process, product or service; and periodically throughout the life of the process, product or service.

Issue with Respondent's response: The response is incomplete.

Respondent's answer is incomplete.

- a. Respondent states here and in other parts of their response that "*protection of the internal electrical circuitry and appliances are the responsibility of the customer and/or homeowner.*"
- Is this responsibility explained at any time to the homeowner (yes/no)?
 - Is the homeowner informed that the new Smart Meter is functionally and operationally different than the meter (i.e. the electro-mechanical meter) being replaced (yes/no)?
 - Is the homeowner informed of any additional upgrades/protections that should be installed to ensure that his internal electrical circuitry and appliances are protected and compatible with the new Smart Meter being installed on his property (yes/no)?

ANSWER:

27. Complainants October 5, 2017 Set #1 Discovery Request 6. i. (page 13):

What measures exist in Your Smart Meters to assure safe and reliable operation, and prevent degradation over time, due to power surges and environmental factors such as debris, humidity, vibration, salt water, etc. which can lead to the occurrence of "hot sockets" that is superior to the traditional strictly Analog Meter?

Discovery Area of Concern: Design, Operation, Safety and Reliability

Respondent's November 20, 2017 response (page 17):

*This request is so vague that Duquesne Light cannot be reasonably expected to form a response, but the HW 3.1 OpenWay CENTRON singlephase meters are ANSI C12.1, ANSI C12.20 and UL2735 compliant devices. Furthermore, the meters operate within the limits established by the FCC and the company's smart meter implementation and procurement plan has been approved by the Pennsylvania Public Utility Commission, which is prima fade evidence that it is reasonable, safe, and in compliance with the law. Furthermore, the meters themselves do not lead to the occurrence of hot socket conditions. **Hot Socket conditions are caused by external influences. External influences that can contribute to hot socket conditions are loose or open meter socket jaws, corrosion of meter socket jaws, contamination of meter socket jaws, and faulty wiring of meter socket. Precautions against, and repair of, such conditions is the responsibility of the customer. (emphasis added)***

Issue with Respondent's response: The response is incomplete. The Respondent is installing a fundamentally new device onto the homeowner's residence. The Respondent states that the homeowner has the responsibility for the upkeep of the meter socket and jaws; but, does not indicate that the homeowner is informed of this responsibility, and what the homeowner needs to do to

meet this responsibility. To clarify,

- Is this responsibility explained at any time to the homeowner (yes/no)?
 - If so, exactly how is this done, and where is the record of this actually occurring?
- Are the Smart Meter prongs/tabs/blades that insert into the meter box sockets an exact match in form and fit (i.e. size, shape, dimensions, materials, separation, and distance) to the prongs/tabs/blades on the meter that is being replaced (yes/no)?
- Is the Smart Meter the property of the Respondent (yes/no)?
- After the Respondent's Smart Meter is installed, does it completely cover the meter box opening and its interior assembly, thus preventing any further ability for routine inspection without disturbing the Respondent's Smart Meter (yes/no)?
- When the Smart Meter is installed on the homeowner's meter box, is it ever installed with a locking ring or a lock of some kind to prevent its removal from the meter box (yes/no)?

ANSWER:

28. Complainants October 5, 2017 Set #1 Discovery Request 6. j. (page 13):

To what degree is Your Smart Meter susceptible to damage from "hot sockets" as compared with the traditional strictly Analog Meter?

Discovery Area of Concern: Design, Operation, Safety and Reliability

Respondent's November 20, 2017 response (page 17):

This request is so vague that Duquesne Light cannot be reasonably expected to form a complete response, but see the response to the preceding Discovery Request.

Issue with Respondent's response: The question is unanswered.

The question is not vague and is not unreasonable. The question specifically asks for the resistance to "hot sockets" of the new Smart Meters versus the Analog Electro-mechanical meters that are being replaced. Respondent refused to answer the question. Respondent's reference to his answer in the previous question does not answer this question. Respondent has operated the electro-mechanical meters for decades. The Respondent has been deploying the new Smart Meters since 2014, and has deployed 100,000s of Smart Meters over this period. The specific differences

between the Respondent's electro-mechanical meters and its new Smart Meters should be known and readily available to the Respondent.

To clarify so that there is no misunderstanding,

- Is the new Smart Meter compositionally and operationally different than the Analog Electro-mechanical meter that it is replacing (yes/no)?
- If the answer is yes, is the susceptibility of the new Smart Meter to damage from a "hot socket" different than the Analog Electro-mechanical meter that it is replacing (yes/no)?
 - If the answer is yes, what is that difference?
 - If the answer is no, what is the evidence?

ANSWER:

29. Complainants October 5, 2017 Set #1 Discovery Request 6. m. (page 13):

How many SK9AMI7 Smart Meters have been removed or recalled from the field for reasons of quality, safety, and reliability?

Discovery Area of Concern: Design, Operation, Safety and Reliability

Respondent's November 20, 2017 response (page 19):

This request is so vague that Duquesne Light cannot be reasonably expected to form a complete response. Furthermore, as noted above, the smart meters being installed in Duquesne Light's service territory are within the limits established by the FCC, have been tested and approved by UL, and comply with ANSI standards. Furthermore, the meters operate within the limits established by the FCC and the company's smart meter implementation and procurement plan has been approved by the Pennsylvania Public Utility Commission, which is prima facie evidence that it is reasonable, safe, and in compliance with the law.

Issue with Respondent's response: The question is unanswered.

The question is not vague and is not unreasonable. The question specifically asks about the nature and numbers of removals of deployed Smart Meters from the field. The Respondent refused to answer the question that was asked. The Respondent has been deploying the new Smart Meters since 2014, and has deployed 100,000s of Smart Meters over this period. It is reasonable to expect that at least some subset of the meters deployed over this period have been removed from the field or recalled for various reasons.

Complainants again request,

- Has the Respondent removed or recalled any of the new Smart Meters from the field (yes/no)?
- How many Smart Meters have been removed or recalled from the field
 - in total?
 - for reasons of safety?
 - for reasons of reliability?
 - for reasons of quality?
 - for any other reasons (and list those reasons)?

ANSWER:

30. Complainants October 5, 2017 Set #1 Discovery Request 9. a. i. (page 15):

How much education, experience, and what specific training do the installer technicians subcontracted by Duquesne Light have, and what, if any, are their certifications?

Discovery Area of Concern: Standards, Safety, and Reliability

Respondent's November 20, 2017 response (page 20):

This interrogatory is so vague and broad that Duquesne Light cannot reasonably be expected to form a response. Duquesne Light cannot be reasonably expected to identify the education, experience, and specific training of each individual subcontractor technician. Notwithstanding the vagueness and broadness of this interrogatory, Duquesne Light provides the following response:

All Wellington Power Corporation field personnel exchanging meters in Duquesne Light's service territory are IBEW union members and have been required to pass a written test as well as a two-week field evaluation. It is Duquesne Light's belief that such evaluation is consistent with industry best practices.

Issue with Respondent's response: The response is incomplete.

The question is not vague or broad. It is a very specific question about the training and background of the meter exchangers being employed to exchange the Smart Meters. The question was not fully answered. The Respondent has asked for very detailed and comprehensive histories of the Complainants training and backgrounds. It should come as no surprise that the Complainants wish to understand the extent of the training that is provided to the Respondent's meter exchangers, and their status. For clarity, Complainants restate the request.

- a. Again, what specific training do the Smart Meter exchangers go through, and what certification is received?

- b. Is "meter exchanger" a recognized profession (yes/no)?
- c. How long is that training program?
- d. What are the minimum requirements necessary to be accepted for training to become a meter exchanger?
- e. Are the Smart Meter exchangers temporary or permanent employees?

ANSWER:

31. Complainants October 5, 2017 Set #1 Discovery Request 9. b. i. (page 15):

The installation of Your Smart Meters has been directly witnessed and observed by many, including myself. The focus is on speed of deployment in a neighborhood (deploying as many devices as possible in the shortest time), not safety. The meters are just simply and quickly changed out in what is called a "hot install."

- i. *What is Duquesne Light's specific installation protocol and procedure that is followed to ensure the safety of its customers/homeowners?*

Discovery Area of Concern: Standards, Safety, and Reliability

Respondent's November 20, 2017 response (page 21):

This request does not contain a question that requires a response from Duquesne Light, but Duquesne Light disagrees that it emphasizes speed over safety.

Prior to pulling a meter, Duquesne Lights instructs its employees to look for obvious signs of deterioration such as excessive corrosion, a sunken or detached underground service entrance cable, or a socket visibly detached from the customer's house. After a meter is pulled and the employee can see behind the meter, the company instructs them to inspect various componentry inside the socket for signs of deterioration. This includes the insulators, the jaws, the connections, and the wiring. The employee is also instructed to verify service voltage. If the design of the socket permits, the employee will apply bypass jumpers prior to removing the meter to prevent the customer from losing power during the exchange.

Issue with Respondent's response: The response is incomplete.

The Respondent only answers the procedural part of the question; but, does not address the specific installation assignment protocols given to its meter exchangers. In an earlier response (See Para 19. herein), the Respondent made reference to "efficiency when installing smart meters".

- Are meter exchangers assigned daily installation quotas (yes/no)?
- Is there a minimum number of Smart Meters that a meter exchanger must install each day (yes/no)? If so, what is that minimum?

- Does the Respondent, or its subcontractor Wellington Energy, offer its meter exchangers bonuses based on the number of meters they install in a day, or how quickly meters are installed in an assigned area (yes/no)?
 - If the answer is yes, what this the structure of that bonus program?

Note: This Discovery Request is appropriate because the Respondent states that the focus of its Meter Exchangers is safety. If there is a bonus incentive for Meter Exchangers that is based on the numbers of meters deployed in an area in a given period of time, then this raises questions about the focus on safety of its Meter Exchangers. The acquiring of bonuses based on speed of deployment of the Smart Meters is a legitimate issue for Discovery.

ANSWER:

32. Complainants October 5, 2017 Set #1 Discovery Request 9. b. ii. (page 15):

What measures has Duquesne Light instituted to make sure that this protocol and procedure are being properly and consistently followed in the field?

Discovery Area of Concern: Standards, Safety, and Reliability

Respondent's November 20, 2017 response (page 21):

To ensure employees are adhering to procedures, Duquesne Light's supervisors take an active approach in conducting field safety audits.

Issue with Respondent's response: The response further explanation.

Respondent's answer is vague, and uses the terms "active approach" and "field safety audits" which it does not define or explain.

- What is the "active approach" that is carried out by Duquesne Light's supervisors?
- What constitutes a "field safety audit?"
- How often are "field safety audits" carried out, and how often are Duquesne Light's supervisors involved?

ANSWER:

33. Complainants October 5, 2017 Set #1 Discovery Request 9. b. iv. (page 15):

How does Duquesne Light protect its customers/homeowners and their property from the potential of "electric flash, arcing, or sparking" upon a "hot install"?

Discovery Area of Concern: Standards, Safety, and Reliability

Respondent's November 20, 2017 response (page 22):

*The term "hot install" is undefined, thereby making it difficult for Duquesne Light to provide a complete response to this Discovery Request. Duquesne Light and its installation contractors do not attempt meter exchanges under conditions they deem to pose a safety hazard. As part of the smart meter exchange process, **Duquesne Light or its installation contractors contact residential customers prior to the exchange, in part to provide the customers with an opportunity to advise the company of any conditions that would impede a meter exchange or if the customer would prefer to shut down operating equipment during the meter exchange.** At the time of the exchange, if the **installation technician** identifies a condition that would make it unsafe to conduct the exchange (e.g., a socket abnormality), he or she stops the exchange and notifies Duquesne Light. Duquesne Light then sends an **experienced meter technician** to remedy the condition and/or notify the customer of required repairs or service corrections. As part of the installation process the **meter exchanger** is to attempt to notify the customer prior to meter exchange in the event the customer would prefer to shutdown operating equipment. If the installer identifies a socket abnormality during install, they would stop exchange and notify Duquesne Light to send a **meter specialist** to make repairs or notify customer of potential service corrections needed. **(emphasis added)***

Issue with Respondent's response: The response is vague and confusing.

Respondent's response mischaracterizes the question. Respondent is incorrect in stating that "hot install" is undefined, when it was defined at the very being of Discovery Request 9. b.

Respondent's response is vague and somewhat confusing as different terminology seems to be used at different times to refer to the same personnel or items, and there is a statement made alleging prior contact with residential customers to advise the company of any conditions that would impede a meter exchange, etc.

- a. Concerning contact. Complainants received only 1 notice which simply indicated that a meter exchange will happen.
 - Is the alleged aforementioned contact by Duquesne Light or its installation contractors with residential customers prior to the meter exchange "so that they can advise the company of any conditions that would impede a meter exchange or if the customer would prefer to shut down operating equipment during the meter exchange" carried out in writing (yes/no)?

If the answer is no, then how does the Respondent know that this is indeed happening as they allege?
- b. Concerning personnel.
 - Does the designation "installation technician" and "meter exchanger" refer to the same personnel (yes/no)?

If the answer is no, how are they different?
 - Does designation "experienced meter technician" and "meter specialist" refer to the same personnel (yes/no)?

If the answer is no, how are they different?

- Are “experienced meter technicians” and “meter specialists” certified electricians (yes/no)?
- What is the difference in training, experience, and certifications between “installation technicians” and “meter exchangers” and “experienced meter technicians” and “meter specialists”?

ANSWER:

34. Concerning the routine “visual inspection” of the homeowner’s exterior meter box and neutral connections, the only inspection of the homeowner’s electrical system that the Respondent states is carried out, Complainants October 5, 2017 Set #1 Discovery Requests 9. d. ii., iii., and iv. (page 16):

9. d. ii. *How many residences have failed this inspection?*

Respondent’s November 20, 2017 response:

Through the course of the project, Wellington Energy has forwarded investigations at a rate of 0.5 percent consistently for Duquesne Light Specialist. In this 0.5 percent would be potential neutral connection concerns.

9. d. iii. *What are the observed frequencies and occurrences of*

- aa. *damage or melting around the meter tabs/blades?*
- bb. *pitting in the socket jaws?*
- cc. *loss of spring tension in the socket jaws?*
- dd. *oxidation on the lug wires?*
- ee. *evidence of arcing?*
- ff. *sockets that are unsafe or not up to code?*
- gg. *other abnormal conditions?*

Respondent’s November 20, 2017 response (page 22):

The 0.5 percent investigation referenced in the response to Discovery Request #9(d)(ii) above includes the conditions stated in Discovery Request #9(d)(iii)(aa)-(gg).

9. d. iv. *What other safety related issues have been observed?*

Respondent’s November 20, 2017 response (page 22):

Duquesne Light does not specifically itemize the socket conditions.

Discovery Area of Concern: Standards, Safety, and Reliability

Issue with Respondent’s response: Response is incomplete and requires clarification.

Respondent provided only an overall percentage of occurrences of safety concerns in their

meter exchangers' routine "visual inspections". The requested specifics of the occurrences were not provided. Respondent stated that it does not specifically itemize the safety concern conditions which is surprising; but, it made no such statement with regard to its subcontractor Wellington Energy. To clarify Respondent's statement,

- Does Wellington Energy, or any other of the Respondent's agents or contractors, have this information (yes/no)?
 - If the answer is yes, please provide the requested information?

ANSWER:

35. Complainants October 5, 2017 Set #1 Discovery Request 12. b. (page 18):

How is the security of our personal information, of the electricity to our Property, of the electrical infrastructure of the state of Pennsylvania not made significantly more vulnerable by the deployment and proliferation of hundreds of thousands to millions of wireless programmable end-metering devices, such as Your Smart Meters, and Your Collector Meters, Your Repeaters, Your Data Storage Centers, etc, which are effectively hundreds of thousands to millions of open portals into the electrical energy infrastructure of the state?

Discovery Area of Concern: Standards, Safety, and Reliability

Respondent's November 20, 2017 response (page 25):

This request is argumentative and Duquesne Light rejects its premise. The smart meters being installed in its service territory are not "open portals into the electrical energy infrastructure of the state."

Issue with Respondent's response: The question is unanswered.

Respondent is dismissive and did not answer the question. Respondent implies it plays no role and its Smart Grid forms no part of the electrical energy infrastructure of the state. To clarify the question so that there is no misunderstanding.

- Does the Respondent operate and maintain the local electrical energy infrastructure in its service area (yes/no)?
- Does the Respondent's local energy infrastructure form part (i.e. a component) of the larger energy infrastructure of western Pennsylvania, and the rest of the state (yes/no)?
- Is each Smart Meter a separate data entry point into the Respondent's Network Mesh grid (yes/no)?

- Has the Respondent deployed hundreds of thousands of Smart Meters throughout its service area (yes/no)?

ANSWER:

36. Complainants October 5, 2017 Set #1 Discovery Request 18. (page 21):

What is the nature and specificity of the customer data being collected by Your Smart Meter system, and how do You intend/ plan to use that customer data?

Discovery Area of Concern: Operation, Security and Privacy.

Respondent's November 20, 2017 response (page 27):

Duquesne Light's residential Smart Meters collect hourly and daily electric consumption data for the purposes of billing customers. Smart Meters also collect the following data used for utility grid operations: demand resets; meter tampering events; battery voltage; power outage or restoration events; and voltage thresholds.

Issue with Respondent's response: Respondent's answer is incomplete.

Respondent refers only to hourly and daily data. The Public Utility Commission's Implementation Order Docket No. M-2009-2092655 states that EDC's Smart Meter technology must provide the capability to record 15 minute or shorter interval electric consumption data, which the Respondent does not acknowledge. The hourly electric consumption data that Respondent's Smart Meters currently measure does not reflect or acknowledge the full capability of its system, or its future intended use. The greater the amount of data that is collected, the more detailed that data becomes and the more detailed the profile is of the homeowner's electrical usage. Since the meter has a finite storage capacity, the more data collected by the meter, the more frequently the Smart Meter has to transmit its data to the Respondent's collection centers. To clarify the nature of the customer data collection:

- What is the shortest data interval of electric consumption the Respondent's Smart Meter is capable of measuring?
- Can each individual Smart Meter on a homeowner's residence be programmed with its own individual data collection interval (yes/no)?
- Can the Respondent change its data collection interval at any time, for any purpose, and at its own discretion (yes/no)?
- Can the Respondent change the data collection interval remotely (yes/no)?

- If not already provided, when operating at this shortest data collection interval of electric consumption, what is the maximum number of Scheduled Reads that the Respondent's Smart Meter is capable of operating at?
- If not already provided, when operating at this shortest data collection interval of electric consumption, what is the maximum Duty Cycle that the Respondent's Smart Meter is capable of operating at?

ANSWER:

37. Complainants October 5, 2017 Set #1 Discovery Request 18. a. (page 21):

Will this personal data only be used for billing purposes internal to Duquesne Light?

Discovery Area of Concern: Operation, Security and Privacy.

Respondent's November 20, 2017 response (page 27):

No. As discussed in the response to the preceding request, some data collected by Smart Meters will be used to facilitate grid operations.

Issue with Respondent's response: Respondent's answer is incomplete.

Respondent's answer is not clear. There is meter overhead operation, and there is collected personal customer electric usage data. Respondent raises the unrelated subject of grid operations here. The Complainant specifically asked how the personal customer electric usage data will be used. Complainant's question did not ask anything about network or meter overhead operations. It was specifically directed only about and concerning the Respondent's intended use of the personal customer electric usage data it collects.

So, to be clear, Complainants again request,

- Will this personal customer electric usage data be used only for billing purposes internal to Duquesne Light (yes/no)?

ANSWER:

38. Complainants October 5, 2017 Set #1 Discovery Request 18. c. (page 21):

If this personal data is to be used for other than billing purposes, what are those purposes, and will this be done only with the knowledge and written consent of the customer/homeowner?

Discovery Area of Concern: Operation, Security and Privacy.

Respondent's November 20, 2017 response (page 28):

The Pennsylvania Public Utility Commission requires Duquesne Light to provide an Eligible Customer List (ECL), comprising certain customer information, to qualified electric generation suppliers (EGSs). Customers can opt to be removed from the ECL. ECL requirements predate, and are not associated with, Duquesne Light's Smart Meter system. For more information about the ECL, visit the Public Utility Commission's website at:

http://www.puc.state.pa.us/utility_industry/electricity/electric_competitive_market_oversight.aspx

Issue with Respondent's response: Respondent's response contains an error and requires clarification. Respondent refers only to the ECL and provided a reference link. Complainant checked this link and found that it points to a webpage which does not exist. To clarify, and as the provided link does not work, Complainants request,

- What is the working link for the ECL?
- To make sure there is no misunderstanding, other than the ECL, are there any purposes that the Respondent intends to use this personal customer electric usage data for other than billing purposes (yes/no)?
 - If yes, what are those other purposes?

ANSWER:

39. Complainants October 5, 2017 Set #1 Discovery Request 18. d. (page 21):

Will this personal data be used to monitor and/or profile the customer/homeowner?

Discovery Area of Concern: Operation, Security and Privacy, Reliability.

Respondent's November 20, 2017 response (page 28):

To an extent, yes. The primary purpose and function of an electric meter (including both Duquesne Light's legacy meters and its Smart Meters) is to monitor the customer's electric consumption.

Issue with Respondent's response: Respondent's response is vague.

The Respondent uses phrases such as "to an extent" and "primary purpose and function." The Complainants are wary of making any assumptions with regards to this language. "To an extent" does not indicate how detailed this profile is, or can be. "Primary purpose and function" implies that there are other purposes and functions of their Smart Meters. Respondent uses these

phrases without specifically explaining what these mean and what they entail. These require clarification and further explanation. To that end:

- Does the Respondent use all or only part of this collected customer electric usage data to calculate the monthly electric bill (all/part)?
 - If only part is used to calculate the monthly bill, what percentage of this collected customer electric usage data is actually used to calculate the monthly bill?
 - Why is the other additional data being collected?
 - Is the monthly electric bill calculated differently with the Smart Meter than the current way the monthly bill is being calculated with the analog electro-mechanical meter (yes/no)?
 - If the answer is yes, how is it different and what measures are in-place to ensure its accuracy and reliability?
- How, and to what “extent” and degree, is the customer profiled?
 - How is the customer's data specifically processed, handled, analyzed, and utilized to create the customer profile?
 - How detailed is this customer profile and what data does it specifically contain?
 - Does the Respondent utilize advanced analytics, either developed in-house or purchased/contracted externally from any outside vendor/contractor, such as utility data analytics companies like ONZO, etc., that have the capability to identify and log specific device, equipment, and electricity usage patterns in the home (yes/no)?
 - Is the Respondent precluded from developing, purchasing, or contracting such advanced utility data analytics and employing it in the future (yes/no)?
- How long is this personal electric consumption data retained in the Respondent's possession?
 - Is this personal electric consumption data retained permanently, or is older data purged after a period of time? If purged, when is it purged?

ANSWER:

40. Complainants October 5, 2017 Set #1 Discovery Request 18. e. (page 21):

Have You received any requests for this personal data from any individual, company, or organization for the purposes of profiling, data-mining, etc.?

Discovery Area of Concern: Operation, Security and Privacy.

Respondent's November 20, 2017 response (page 28):

Upon information and belief, Duquesne Light has received one request from an external party for customer interval usage data for the purposes of developing customer profiles. Duquesne Light received this request in 2013 and denied it. DLC does not provide customer data to unauthorized parties.

Issue with Respondent's response: Respondent's response requires clarification.

While Complainants are gratified to learn that DLC does not provide customer data to unauthorized parties, the Respondent does not explain the term "unauthorized parties." To clarify,

- What parties are authorized to receive this personal customer data?
- Who determines if a party is authorized or not authorized to receive this personal customer data (DLC / PUC)?

ANSWER:

41. Complainants October 5, 2017 Set #1 Discovery Request 18. h. (page 21):

Do You have plans in the future to market this personal data in any way for the purposes of creating new income streams?

Discovery Area of Concern: Operation, Security and Privacy.

Respondent's November 20, 2017 response (page 29):

No.

Issue with Respondent's response: Respondent's response requires clarification.

- Is the Respondent precluded from offering this personal customer data to any individual, company, or organization in the future (yes/no)?

ANSWER:

42. In Complainants October 5, 2017 Set #1 Discovery Request, Complainants asked a series of simple and straightforward questions. These are presented below:

- Complainants October 5, 2017 Set #1 Discovery Request 5. (page 11):

Do You stand behind and guarantee Your claim that Your wireless Smart Meter system is harmless? If so, will You provide a written warranty to that effect indicating that You are accountable and will accept all liability for all health and medical consequences that occur as a result of Your wireless Smart Meter system?

- Complainants October 5, 2017 Set #1 Discovery Request 8. (page 14):
Do You stand behind and guarantee Your claim that Your wireless Smart Meter system is safe and reliable? If so, will You provide a written warranty to that effect indicating that You are accountable and will accept all liability for any and all property damage and personal harm, etc. that occurs as a result of Your wireless Smart Meter system?
- Complainants October 5, 2017 Set #1 Discovery Request 11. (page 17):
Do You stand behind and guarantee Your claim that Your manner of installing Your Smart Meters is safe? If so, will You provide a written warranty to that effect indicating that You are accountable and will accept all liability for any and all property damage and personal harm, etc. that occurs as a result of the installation of Your wireless Smart Meter?
- Complainants October 5, 2017 Set #1 Discovery Request 14. (page 19):
Do You stand behind and guarantee Your claim that Your Smart Meter system is secure? If so, will You provide a written warranty to that effect indicating that You are accountable and will accept all liability for any and all Property damage and personal harm, etc. that occurs as a result of the hacking, breach, or abuse of Your Smart Meter security system?
- Complainants October 5, 2017 Set #1 Discovery Request 17. (page 20):
Do You stand behind and guarantee Your claim that Your Smart Meter system will not negatively affect the value of our Property? If so, will You provide a written warranty to that effect indicating that You are accountable and will accept all liability for any loss in value of our Property that occurs as a result of the installation of Your Smart Meter system?
- Complainants October 5, 2017 Set #1 Discovery Request 20. (page 21):
Do You stand behind and guarantee Your claim that our personal data collected by Your Smart Meter system will remain secure and private within Duquesne Light? If so, will You provide a written warranty to that effect indicating that You are accountable and will accept all liability for any loss, abuse, or misuse of our personal data, and any use of our personal information for other than billing purposes without our knowledge and written consent, that is collected and stored by Your Smart Meter system?

Discovery Area of Concern: Operation, Health Consequences, Safety, Reliability, Security and Privacy.

In all cases, Respondent's November 20, 2017 response (pages 15, 20, 24, 26, 27, and 29):

This request is vague, ambiguous, and lacks a factual foundation as it does not indicate how or when Duquesne Light made the alleged statement in question. Duquesne Light reiterates that it is required by law to install smart meters throughout its service territory, which includes Complainants' home. The company's smart meter procurement and implementation plan has been approved by the Pennsylvania Public Utility Commission, which is prima facie evidence that it is safe, reasonable, and in compliance with the law. Duquesne Light's alleged liability for any acts or omissions will

be adjudicated through the appropriate legal proceedings based on the facts of each case.

Issue with Respondent's response: Respondent does not answer the question that is being asked. Complainants object to this characterization, and can only view it as an evasion of what are simple, clear, and straightforward questions requiring a simple, clear, and straightforward yes or no answer.

The Respondent states that these questions lack a factual foundation, when the Respondent has stated in its published literature, in print and online, and in its objections to our Formal Complaint that its Smart Meters and Network Mesh cause no harm, are safe, reliable, safely installed, secure, etc., and that personal Customer data that is collected will remain secure and private within Duquesne Light. If this is factually incorrect, then Respondent needs to state plainly, and for the record:

- Are Respondent's Smart Meters and Network Mesh:
 - harmless (yes/no)?
 - safe (yes/no)?
 - reliable (yes/no)?
 - safely installed (yes/no)?
 - secure (yes/no)?
 - not a negative impact on the customer's property and property value (yes/no)?
- And, is the personal data that is collected
 - secure and private within Duquesne Light, and will remain so (yes/no)?
- Did the Respondent affirm these matters before the Public Utility Commission in order to gain approval of the Respondent's smart meter procurement and implementation plan (yes/no)?
- In all of these matters where the Respondent answered yes, will the Respondent stand behind that affirmation and provide a written warranty to that effect to the Complainant indicating that the Respondent is accountable and will accept all liability for any and all harm caused by and attributed to the installation and use of their Smart Meter on the Complainants property (yes or no)?

ANSWER:

43. Complainants October 5, 2017 Set #1 Discovery Request 21. (page 22):

How many incidents have occurred, and how many customers have filed concerns and complaints with Duquesne Light, concerning Your Smart Meters with regards to, but not limited to,

- a. health?*
- b. safety, reliability, and fires?*
- c. privacy?*
- d. security?*
- e. electrical and device interference?*
- f. increased and increasing electrical bills, and over-billing charges?*

What were the specifics of these incidents or complaints?

Discovery Area of Concern: Operation, Health Consequences, Safety, Reliability, Security and Privacy.

Respondent's November 20, 2017 response (page 29):

This request is so vague and broad that Duquesne Light cannot be reasonably expected to form a complete response, but copies of all complaints filed with the Pennsylvania Public Utility Commission are publicly available. The mere fact that a complaint was filed does not in any way suggest that Duquesne Light acted improperly or violated the law.

Issue with Respondent's response: These questions are unanswered.

This question is neither vague nor broad. Complainants did not ask about complaints filed with the Public Utility Commission. Complainants asked about customer Smart Meter complaints and concerns lodged with the Respondent. The Respondent has a customer care department specifically tasked with handling customer complaints and concerns. Respondent has been deploying its Smart Meters since 2014. The Respondent did not answer the question that was asked, and formed its response to a question that was not asked.

Again, Complainants request,

- How many incidents have occurred, and how many customers have filed concerns and complaints with Duquesne Light, concerning Your Smart Meters with regards to, but not limited to,
 - health?
 - safety, reliability, and fires?
 - privacy?
 - security?
 - electrical and device interference?
 - increased and increasing electrical bills, and over-billing charges?

ANSWER:

44. Complainants October 5, 2017 Set #1 Discovery Request 22. (page 22):

Has Duquesne Light provided any relief or accommodation from their Smart Meter system to any individual, official, group, community, organization, etc. for any reason at any time?

- a. *If so, list those individuals, officials, groups, communities, organizations, etc., and the reasons for that relief or those accommodations?*

Discovery Area of Concern: Operation, Health Consequences, Safety, Reliability, Security and Privacy.

Respondent's November 20, 2017 response (page 30):

The term "relief or accommodation from their Smart Meter system" is so vague that Duquesne Light cannot be reasonably expected to form a complete response. Duquesne Light reiterates that it is required by law to install smart meters throughout its service territory, and that the applicable laws do not provide for individual customers to "opt out" of having a Smart Meter installed at their premises.

Issue with Respondent's response: The question is unanswered.

PA Utility Code § 1501. Character of service and facilities, states:

Every public utility shall furnish and maintain **adequate, efficient, safe, and reasonable service and facilities**, and shall make all such repairs, changes, alterations, substitutions, extensions, and improvements in or to such service and facilities as shall be necessary or proper **for the accommodation, convenience, and safety of its patrons, employees, and the public.**
(emphasis added)

The Respondent has been deploying its Smart Meters since 2014. The Respondent states that it does not understand what "relief or accommodation" means, yet this terminology is used and exists in PA Utility Code § 1501. For example, settlements are one form of relief or accommodation that the Public Utility Commission advocates.

So, the Complainants again request,

- Has Duquesne Light provided any form of relief or accommodation, including but not limited to settlements, from their Smart Meter system to any individual, official, group, community, organization, etc. for any reason at any time (yes/no)?
- If the answer is yes, what specific form or forms has this relief, accommodation, and/or settlement taken?

ANSWER:

45. The Complainants provided the Respondent with all of the time it requested to answer the Complainants October 5, 2017 Set #1 of Discovery Requests. The Respondent expressed resistance to many of those requests in its original responses, and there were many deficiencies encountered with the Respondent's original responses. If the Respondent fully answers these outstanding Discovery Requests in a straightforward, forthright, and complete manner, then the Complainants feel that the Discovery process will have fulfilled the purpose for which it was intended. The outstanding Discovery issues provided herein comprise the Respondent's Discovery responses that have inconsistencies that need to be reconciled, terminologies and processes/procedures that need to be properly defined and clarified, omissions that need to be provided, statements that need to be explained, and unanswered questions that need to be answered.

The Complainants reluctantly appeal for Your Honor's assistance in addressing and expediting the resolution of these Discovery requests and issues. Considering the circumstances, Complainants view this as the only practical and viable venue available to achieve this resolution in a timely manner. Any assistance and direction that Your Honor can provide would be greatly appreciated, and would help move this process along in a manner that is both expedient and efficient.

46. Again, Complainants refer to 52. Pa. Code § 5.321(c) Scope,

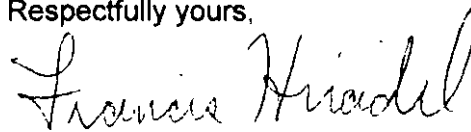
a party may obtain discovery regarding any matter, not privileged, which is relevant to the subject matter involved in the pending action, ... , including the existence, description, nature, content, custody, condition and location of any books, documents, or other tangible things and the identity and location of persons having knowledge of a discoverable matter. It is not ground for objection that the information sought will be inadmissible at hearing if the information sought appears reasonably calculated to lead to the discovery of admissible evidence. (emphasis added)

Complainants aver that we have adhered to the spirit and intent of 52. Pa. Code § 5.321(c). All of the Complainants Discovery Requests relate directly to health, safety, reliability, security, and privacy, all of which have been raised in Complainants Formal Complaint and subsequent submissions. Complainants have only submitted Discovery Requests that are germane to their complaint, and their appeal for accommodation and relief.

47. Complainants are tasked with having to produce a preponderance of evidence to meet their burden of proof. Complainants ability to do this will be harmed if the answers to our Discovery Requests are not forthcoming and are subject to the discretion of the Respondent.

WHEREFORE, in light of these circumstances, Complainants Michele Hriadil and Francis Hriadil respectfully request that You Honor rule to compel the Respondent to fully answer the Discovery Requests provided herein, which are those that remain unclearly unanswered or incompletely answered from Complainants October 5, 2017 Set #1 of Discovery Requests.

Respectfully yours,



Francis Hriadil
(412) 779-3314
331 Shady Ridge Drive
Monroeville, PA 15146
February 20, 2018

**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 Complainants Motion to Compel Discovery with ALJ Jeffrey Watson upon the participants listed below in accordance with the requirements of 52 PA.

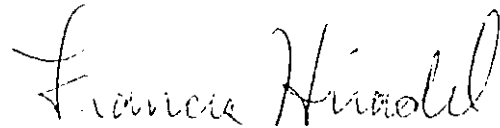
Code § 1.54 (relating to service by a participant):

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
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Pittsburgh, PA 15222
(412) 594-5619 (Fax)

Counsels for Respondent, Duquesne Light Company

Dated this 20th day of February, 2018



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PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

F. Hriadil
331 Shady Ridge Drive
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Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
400 North Street
Harrisburg, Pennsylvania 17120

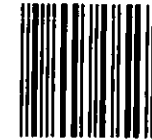


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