

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Complaint of)	
Kenneth B. Logan,)	
)	
Complainant,)	
)	
v.)	Case No: 17-1943-EL-CSS
)	
Ohio Power Company,)	
)	
Respondent.)	

**DIRECT TESTIMONY OF
PAULA S. IGO
ON BEHALF OF
OHIO POWER COMPANY**

1 **I. INTRODUCTION**

2 **Q. WHAT IS YOUR NAME AND BUSINESS ADDRESS?**

3 A. My name is Paula S. Igo. My business address is 700 Morrison Road, 4th floor, Gahanna,
4 Ohio 43232.

5 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6 A. I am employed by Ohio Power Company (“AEP Ohio” or the “Company”) in the
7 Regulatory Consultant, Principle position.

8 **Q. WHAT WAS YOUR PREVIOUS POSITION AT AMERICAN ELECTRIC**
9 **POWER?**

10 A. My previous position was with the gridSMART group, where I was a Project Manager
11 responsible for contracts and reporting for the AEP Ohio gridSMART Demonstration
12 Project with the Department of Energy.

13 **Q. WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND?**

14 A. I am an attorney, but I am not employed as or practicing as an attorney for American
15 Electric Power Company or AEP Ohio. I received my Juris Doctorate from the University
16 of Dayton School of Law in May 1996. I was admitted to the Ohio Bar in November 1996.
17 Prior to that, I received a Bachelor of Arts in Psychology from Wright State University in
18 March, 1993. I have also completed my Project Management Professional certification.
19 I have 10 years electric utility experience with AEP Ohio. I started my career as a Contract
20 Analyst supporting distribution and AEP’s gridSMART projects. I then became an AEP
21 Ohio Project Manager, responsible for the contracts that supported the AEP Ohio
22 gridSMART Demonstration Project as well as the project reporting. Following the
23 project’s successful completion, I joined the AEP Ohio Regulatory Operations group.

1 Prior to joining AEP, I spent 10 years as a trial attorney for the Franklin County Public
2 Defender's Office.

3 **Q. WHAT WERE YOUR RESPONSIBILITIES AS A PROJECT MANAGER ON THE**
4 **GRIDSMART TEAM?**

5 A. I was responsible for the management of the contracts for the gridSMART project. This
6 included managing Requests for Proposals and the selection of vendors, negotiating
7 contracts, drafting contracts with the AEP Legal Department, and project reporting. With
8 this effort, I became familiar with the technologies being deployed within the Company's
9 service territory, including Advanced Meter Infrastructure – AMI meters or “smart”
10 meters.

11 **Q. WHAT ARE YOUR RELEVANT RESPONSIBILITIES AS A REGULATORY**
12 **CONSULTANT?**

13 A. In my current role, I have continued to be involved with the AEP Ohio smart grid
14 deployment. I have provided support with the implementation of the “Opt Out” process for
15 AMI meters and AMR or RF (Radio Frequency) meters. I discuss each of these
16 technologies in this testimony.

17 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

18 A. To provide information about the metering options available for AEP Ohio customers,
19 including Complainant Kenneth Logan.

1 **II. METERING OPTIONS FOR RESIDENTIAL CUSTOMERS**

2 **Q. WHAT DOES AEP OHIO USE AS THE STANDARD METER FOR**
3 **RESIDENTIAL CUSTOMERS?**

4 A. Depending on the location, AEP Ohio is deploying smart meters or AMI meters as the
5 standard meter for residential customers. Previously, AEP Ohio deployed roughly 132,000
6 AMI meters in the Northeast portion of Central Ohio. Recently, the Public Utilities
7 Commission of Ohio (“Commission”) approved the Company’s request to deploy an
8 additional 894,000 AMI meters across urban and suburban areas of the Company’s service
9 territory.

10 In areas that are more rural, AEP Ohio has deployed AMR or Radio Frequency (RF)
11 meters. AMR meters are also installed when AEP Ohio becomes aware that an analog
12 meter is not accurately measuring consumption of the customer’s electricity, but the AMI
13 network has not yet been deployed in the customer’s area.

14 **Q. WHAT TYPE OF METER IS BEING DEPLOYED IN COMPLAINANT’S AREA?**

15 A. Complainant’s residence is within the Company’s AMI deployment territory. He is not
16 eligible for AMR.

17 **Q. ARE ANALOG OR DIAL METERS CONSIDERED STANDARD METERING**
18 **EQUIPMENT IN AEP OHIO TERRITORY?**

19 A. No. While there are still analog or dial meters deployed in the AEP Ohio territory, these
20 meters are no longer standard metering equipment. AEP Ohio is in the process of replacing
21 these unsupported meters with either AMI or AMR meter, depending on the area.

1 **Q. WHY ARE ANALOG METERS NO LONGER CONSIDERED STANDARD**
2 **METERING EQUIPMENT?**

3 A. These meters are no longer manufactured or supported. As such, AEP Ohio has evaluated
4 the available electric meters, and selected the AMI and AMR meters that are now the
5 standard metering equipment. New employees are not trained to read analog/dial meters.
6 AEP Ohio does not manufacture, purchase, or use such meters. In fact, the Company has
7 not purchased an analog meter in over ten years.

8 **Q. ARE YOU FAMILIAR WITH AMI METERS?**

9 A. Yes. AMI meters or smart meters are meters that collect information at the customer's
10 premises and communicates information back to AEP through wireless, mesh
11 communication network. AEP has deployed such a network in areas where AMI is being
12 deployed. In addition to the meter communicating back to AEP's systems, AEP is also
13 able to send communications to the meter- we are able to "ping" the meter to determine if
14 it is operating properly, we can send updates through the network to the meter, and we are
15 able to remotely connect or disconnect the meter.

16 **Q. ARE THERE ADDITIONAL STANDARD METER TYPES USED FOR**
17 **RESIDENTIAL METERS IN AEP OHIO TERRITORY?**

18 A. Yes. For residential customers who have elected to "Opt-Out" of the standard metering
19 equipment, AEP has a non-emitting, digital meter that is installed at the customer's
20 premises. These non-emitting meters measure the electrons being used by the consumer
21 (like a traditional dial meter) and displays the reading on the digital display. An AEP Ohio
22 representative must physically access the meter to obtain the meter reading. The non-
23 emitting digital meter does not contain a radio and is not able to send or receive

1 information. See Exhibit PSI-1, which contains a photographic comparison of an AMI and
2 non-emitting meter. As Exhibit PSI-1 demonstrates, a non-emitting meter lacks a
3 communications card and a remote disconnection switch, both of which are present in an
4 AMI meter.

5 **Q. IS A RESIDENTIAL CUSTOMER REQUIRED TO HAVE AN AMI METER?**

6 A. No. A residential customer has the option to “Opt-Out” of standard metering equipment.
7 In these cases, a non-emitting, non-communicating digital meter is installed at the
8 customer’s premises, as I explained earlier. The customer will be required to pay a \$24.00
9 monthly fee to opt-out of AMI. This monthly opt-out fee was approved by the
10 Commission. Additionally, if an AMI meter has been previously installed at the premises,
11 the customer will be required to pay a \$54.00 meter exchange fee to obtain a non-emitting
12 meter.

13 The customer also has the option of moving the meter (at the customer’s expense) to a
14 different location on the premises.

15 **Q. WHY DOES AEP OHIO NEED PHYSICAL ACCESS TO A METER ON A**
16 **CUSTOMER’S PREMISES?**

17 A. AEP Ohio needs access to a meter on a customer’s premises for several reasons. Access
18 is necessary to obtain meter readings (in the case of non-emitting meters and analog meters
19 that are in the process of being replaced). Additionally, AEP Ohio requires access to the
20 meter in order to inspect the condition of AEP Ohio equipment, such as the meter and
21 conductor, as well as customer equipment, such as the meter box.

1 **Q. IS IT APPROPRIATE FOR A CUSTOMER TO READ HIS OWN METER AND**
2 **CALL IN HIS USAGE INSTEAD OF ACCEPTING AMI OR OPTING OUT AND**
3 **RECEIVING A NON-EMITTING DIGITAL METER?**

4 A. No, it is not. Although a customer may be able to read his meter, AEP Ohio is unable to
5 use that reading for billing purposes. Such an approach would not be appropriate because
6 there would be both an opportunity for inadvertent error and for a customer to manipulate
7 a reading. The Company also has no systems in place to enter a customer-provided reading
8 or store information or photographs a customer might provide to document the reading.
9 Such systems would be costly to develop and of little utility in any event, given the
10 Company's concerns about the accuracy or a customer-provided reading.

11 **Q. CAN THE COMPANY REFUSE TO ALLOW A CUSTOMER TO OPT OUT OF**
12 **AN AMI METER?**

13 A. Yes. Ohio Administrative Code 4901:1-10-05(J)(4) states:

14 The electric utility shall have the right to refuse to provide advanced meter
15 opt-out service in either of the following circumstances:

16 (a) If such a service creates a safety hazard to consumers or their premises,
17 the public, or the electric utility's personnel or facilities.

18 (b) If a customer does not allow the electric utility's employees or agents
19 access to the meter at the customer's premises.

20 I understand this to mean that if a customer does not allow AEP Ohio access to his meter,
21 AEP Ohio can refuse to allow the customer to opt out of AMI, and thus an AMI meter
22 would be installed.

1 **III. CONCLUSION**

2 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

3 A. AEP Ohio's standard meter for Mr. Logan's area is an AMI meter, which will be deployed
4 in the next year. If Mr. Logan elects to opt out of the standard AMI metering equipment
5 when it is deployed, Mr. Logan will receive a non-emitting, digital meter. If Mr. Logan
6 opts out of the AMI meter, he will be charged the Commission-approved monthly opt-out
7 fee and will need to allow AEP Ohio personnel to access the meter to take readings.

8 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

9 A. Yes.

CERTIFICATE OF SERVICE

In accordance with Rule 4901-1-05, Ohio Administrative Code, the PUCO's e-filing system will electronically serve notice of the filing of this document upon parties of record who have registered for electronic filing notifications. In addition, I hereby certify that the foregoing was served by regular mail upon the address listed below on this 21st day of June, 2018

Kenneth B. Logan
2489 Edsel Avenue
Columbus, Ohio 43207

Complainant

/s/ Christen M. Blend

Christen M. Blend

Differences between a Smart Meter and a Regular Meter

AMI Smart Meter - NMD06
Blue Label



Regular Meter - NP008
White Label



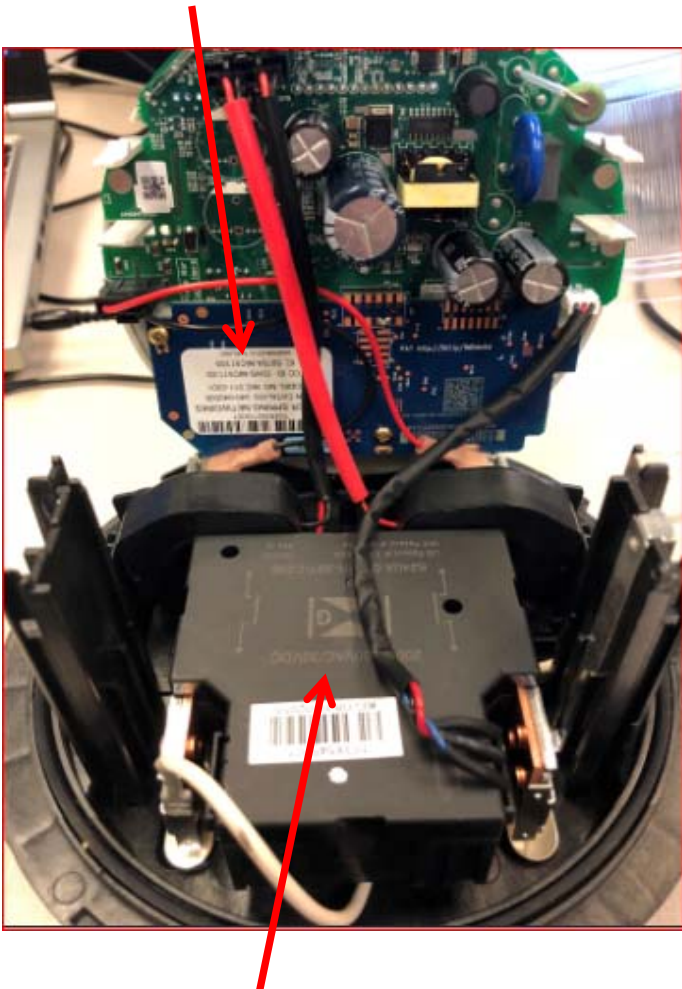
Communications Card



No Communications Card

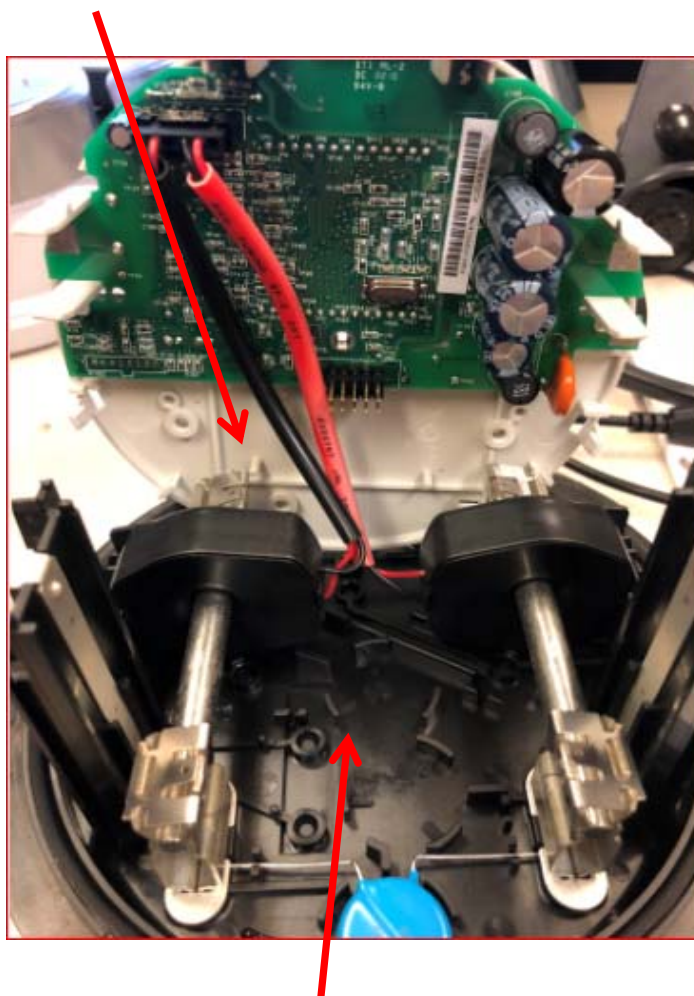


Communications Card



Disconnect Switch

No Communications Card

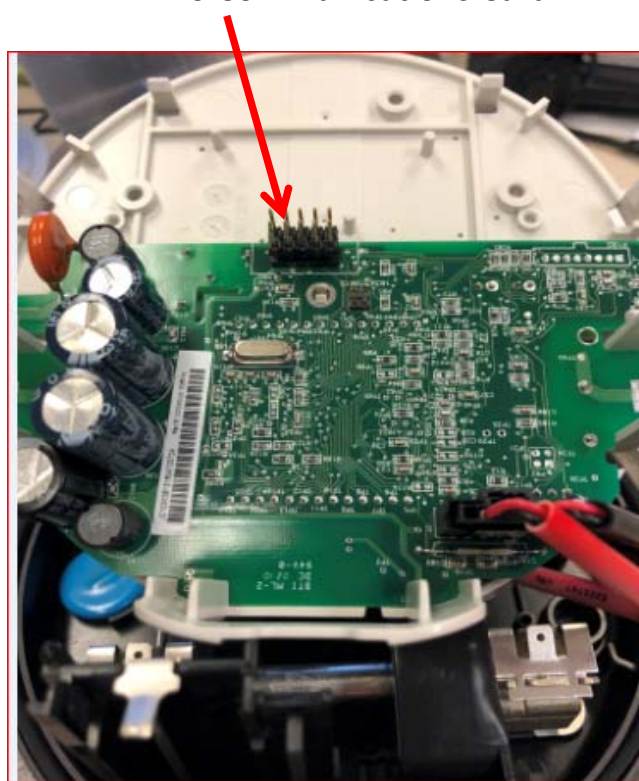


No Disconnect Switch

Communications Card



No Communications Card



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Case No(s). 17-1943-EL-CSS

Summary: Testimony - Direct Testimony of Paula S. Igo on Behalf of Ohio Power Company
electronically filed by Ms. Christen M. Blend on behalf of Ohio Power Company