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February 24, 2025

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ELECTRONICALLY FILED

Linda C. Bridwell
Executive Director
Public Service Commission
211 Sower Boulevard
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Frankfort, KY 40602-0615

RECEIVED

FEB 24 2025

PUBLIC SERVICE
COMMISSION

RE: **Case No. 2025-00027**

Dear Ms. Bridwell:

This letter constitutes the Read1st file required by 807 KAR 5:001, Section 8(5):

(a) General Description of the Filing – Kentucky Power is electronically filing herewith:

(i) The Read1st file required by 807 KAR 5:001, Section 8(5); and

(ii) Verified Response of Kentucky Power Company to the Commission's February 12, 2025 Order and Motion to Dismiss.

(b) Materials Not Included In The Electronic Filing – Kentucky Power is filing in paper format only:

(i) None.

(c) Attestation – The electronically-filed documents are a true representation of the original documents.

(d) Service – There are no parties to this proceeding who have been excused from electronic filing procedures [807 KAR 5:001, Section 8(7)(c)]. A copy of the materials identified above as being electronically filed was served by using the Public Service Commission of Kentucky's electronic filing service. Kentucky Power also mailed via USPS First Class mail a copy of the materials identified above to the following:

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February 24, 2025
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Larry and Debra Peterman
51 Woodland Way
Grayson, Kentucky 41143

(e) Other Matters – None.

Very truly yours,

STITES & HARBISON PLLC



Katie M. Glass

KMG

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

Larry and Debra Peterman)	
)	
Complainants)	
v.)	
)	Case No. 2025-00027
Kentucky Power Company)	
)	
Defendant)	

**Verified Response of Kentucky Power Company to the Commission’s February 12, 2025
Order and Motion to Dismiss**

Kentucky Power Company (“Kentucky Power”) files its response to the Formal Complaint of Larry and Debra Peterman and respectfully moves the Public Service Commission of Kentucky (“Commission”) to dismiss the Petermans’ Complaint on the grounds that, after thorough inspection, Kentucky Power determined that the issues complained of in the Petermans’ Complaint do not result from Kentucky Power’s facilities and therefore cannot be remedied by Kentucky Power. Kentucky Power states as follows in support of its Response and Motion to Dismiss:

RESPONSE TO FORMAL COMPLAINT

The September 3, 2024 Visit:

Kentucky Power was contacted by Mr. Peterman who reported experiencing a tingling sensation when entering the in-ground pool¹ located at his residence in Grayson, Kentucky, with voltage readings fluctuating around two volts, depending on the day. On September 3, 2024,

¹ Kentucky Power understands that the in-ground pool was installed after the residence was built and after electric service was run to the residence.

Kentucky Power representatives performed a thorough investigation of the issue at the Petermans' residence. Kentucky Power recorded ground resistance measurements at the transformer pole (82 ohms) and the meter base grounding rod (90 ohms), and also measured the voltage at the grounding rod behind the pool pump (0.4 volts) and from the grounding rod behind the pool pump to the pool water (0.6 volts). Kentucky Power took various voltage measurements in the pool as well and recorded 0.4 volts at the pool slide, 0.6 volts at the pool ladder, and 1.1 volts in the middle of the pool. Finally, Kentucky Power recorded 1.1 volts at the cable service splicer that is attached to the house in the center of the pool area. Kentucky Power performed each of the voltage measurements with a low impedance multimeter that is calibrated and maintained in a manner consistent with Commission regulations. The low impedance multimeter removes "ghost voltage."² At no point during the investigation on September 3, 2024 did Kentucky Power record voltage readings in or around the pool near the two volts reported by Mr. Peterman.

Kentucky Power then performed, as part of its investigation, some isolation testing to try and determine where the stray voltage recorded in and around the pool originated from. After disconnecting the two "hot legs" and the neutral wire leading to the residence at Kentucky Power's pole (the Kentucky Power facilities), Kentucky Power again took voltage readings in the

² Ghost voltages occur from having energized circuits and non-energized wiring located in close proximity to each other, such as in the same conduit or raceway. This condition forms a capacitor and allows capacitive coupling between the energized wiring and the adjacent unused wiring. Ghost voltage is not related to power system faults, and is generally not considered hazardous.

When placing multimeter leads between the open circuit and the neutral conductor, it effectively completes the circuit through the input of the multimeter. The capacitance between the connected, hot conductor and the floating conductor forms a voltage divider in conjunction with the multimeter input impedance. The multimeter then measures and displays the resulting voltage value.

Most digital multimeters available today have an input impedance that is high enough to show the capacitively coupled voltage, giving a false impression of a live conductor. The meter is actually measuring voltage coupled into the disconnected conductor. However, these voltages, at times, can be 80-85% of what the "hard" voltage should be. If not recognized as a ghost voltage this could affect the troubleshooting of circuit problems. Low impedance multimeters recognize and remove this ghost voltage from readings.

pool and again recorded 0.4 volts at the pool slide, 0.6 volts at the pool ladder, and 1.1 volts in the middle of the pool. Thus, even with disconnection of Kentucky Power's facilities, the voltage readings in the pool remained the same.

Kentucky Power continued the isolation testing and, while the Kentucky Power facilities remained disconnected, also disconnected the cable service running from the secondary pole to the residence with Mr. Peterman's permission. After disconnecting the cable service, Kentucky Power again took voltage readings in the pool and recorded 0.0 volts at the pool slide, 0.0 volts at the pool ladder, and 0.1 volts in the middle of the pool. Thus, after the cable service was disconnected the voltage readings in the pool went to zero or very near zero.

The isolation testing performed by Kentucky Power confirmed that the voltage in the pool was not originating from Kentucky Power facilities. Rather, Kentucky Power believes the voltage to be originating from the cable service. Kentucky Power advised Mr. Peterman of its investigation findings and stated that the identified causes of the voltage in the pool likely were that the cable service ground was not connected properly by the cable service provider at the top of the secondary pole and/or that the in-ground pool may not have been bonded properly at installation, which, if installed properly, would have prevented stray voltage from entering the pool.

Kentucky Power recommended that the Petermans schedule a visit from their cable service provider to address the identified cable service grounding issue. Mr. Peterman indicated that he had scheduled a visit from the cable provider to take place on September 12, 2024. Contemporaneously with the site visit, Kentucky Power generated an "after-action report" documenting the visit to the Peterman residence and the investigation findings. A copy of the after-action report is attached hereto as **EXHIBIT 1**. Kentucky Power indicated it would follow up

with the Petermans to ensure the issue was resolved and would continue monitoring the situation to ensure safety and customer satisfaction.

The September 12, 2024 Visit:

After Kentucky Power departed from the September 3, 2024 visit to the Peterman residence, Mr. Peterson again reported stray voltage in the in-ground pool and provided Kentucky Power with a photograph that purported to show his multi-meter reading 2.19 volts at the pool. However, the metadata on the photograph shows that the photograph was taken in February 2024 and not on September 3, 2024. Nonetheless, Kentucky Power again visited the Peterman residence on September 12, 2024 to perform additional inspections at Mr. Peterson's request, as detailed in the after-action report filed as Exhibit 1.

Kentucky Power performed additional ground wire assessment and circuit breaker panel testing. Kentucky Power again performed voltage testing in and around the pool. Again, Kentucky Power was unable to locate any sources of voltage anywhere near the 2.19 volts reported by Mr. Peterman. Kentucky Power was unable to find any evidence that differed from that found in its original investigation on September 3, 2024, that the voltage in the pool was not resulting from Kentucky Power facilities and instead likely was resulting from the customer's cable service. Kentucky Power again recommended that the customer monitor and report any changes and indicated it would keep communication open with the Petermans for any further assistance required.

The September 27, 2024 Neutral Connection Testing:

Mr. Peterman subsequently reported a neutral connection issue to Kentucky Power. Kentucky Power then installed on September 23, 2024, a voltage recorder at the Peterman residence to investigate the reported issue. Unfortunately, the recorder failed during the

monitoring period. A new voltage recorder was installed and read on September 27, 2024, and the data collected indicated that the power quality to the home was satisfactory, with no indications of a neutral issue.

The November 6, 2024 Visit:

Despite the results of the neutral connection testing performed by Kentucky Power, Mr. Peterman reported to Kentucky Power on November 5, 2024 that he identified Kentucky Power facilities as the cause of the voltage in the pool. Mr. Peterman relayed to Kentucky Power that the disconnection of the neutral wire from the meter base resulted in the voltage in the pool dropping to zero. Kentucky Power explained that such a disconnection could not cause a total voltage drop. Kentucky Power again visited the Peterman residence on November 6, 2024 to perform additional investigation and testing.

Kentucky Power again performed a thorough investigation around the property, including additional neutral testing and voltage testing in the pool. Kentucky Power recorded a reading of 0.6 volts from the pool to the cable service connection to the residence. Kentucky Power also then performed similar isolation testing as the first visit on September 3, 2024 by disconnecting the two “hot legs” and the neutral wire leading to the residence at Kentucky Power’s pole (the Kentucky Power facilities). Kentucky Power tested the voltage from the pool water to the cable service splitter and recorded 0.8 volts with the low impedance multimeter. Kentucky Power again did not identify any of its facilities as the cause of the voltage in the pool. Upon this investigation and testing, Mr. Peterman agreed with Kentucky Power representatives that the voltage was not originating from Kentucky Power facilities.

Kentucky Power did not perform any additional visits to the Peterman residence or any additional testing after the November 6, 2024 visit, as it was understood between Mr. Peterman and Kentucky Power that the issue was not caused by Kentucky Power.

Kentucky Power denies all claims in the Petermans' formal complaint that are inconsistent with the facts as detailed and verified herein.

MOTION TO DISMISS

Kentucky Power respectfully requests that the Commission dismiss the formal complaint filed by the Petermans on the grounds that the stray voltage complained of does not result from any Kentucky Power facilities, as evidenced by the comprehensive testing performed by Kentucky Power detailed in Exhibit 1. Kentucky Power visited the Peterman residence on several occasions to address the Petermans' reported issues. Kentucky Power performed extensive and thorough testing with professional instruments that are calibrated and maintained in accordance with Commission regulations. Kentucky Power was never able to record or verify the voltage levels reported by the customer and instead recorded much lower voltage levels in the pool. Kentucky Power found through isolation testing that the stray voltage cannot be resulting from any Kentucky Power facilities. Rather, the stray voltage appears to be resulting from the cable service line. Additionally, upon information and belief, the Petermans' in-ground pool was installed after the residence was originally constructed and the electric service was run to the house. Upon information and belief, the pool was not properly bonded, which would have insulated the pool water from the stray electric voltage complained of. Therefore, regardless of where the voltage results from, if the pool had been properly bonded and installed, the voltage would not be present in the pool.

Kentucky Power takes all customer complaints seriously and has made concerted efforts to address the issues identified by the Petermans. Because the stray voltage is not and cannot be resulting from Kentucky Power facilities, Kentucky Power, as a matter of fact, cannot cure the issues complained of in the Peterman's formal complaint.

WHEREFORE, for the reasons stated herein, Kentucky Power respectfully requests that the Commission dismiss with prejudice the formal complaint against it filed by the Petermans.

Respectfully submitted,



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COUNSEL FOR KENTUCKY POWER
COMPANY

VERIFICATION

I, Craig A. Bove, Engineer for Kentucky Power Company, after being duly sworn, state that the facts contained in this Response and Motion to Dismiss are true and accurate to the best of my knowledge.


Craig A. Bove

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF BOYD)

Subscribed and sworn to before me by Craig A. Bove on this the 24th day of February, 2025.


Notary Public State at Large

My Commission Expires: May 5, 2027

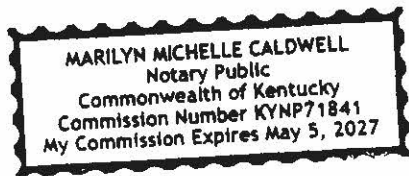


EXHIBIT 1

51 Woodland Way, Grayson

Summary of Voltage Issue Investigation

Customer Concern: 9/3/2024

The customer reported experiencing a tingling sensation when entering their pool, with voltage readings fluctuating around **2 volts** depending on the day.

Investigation Findings

1. Ground Resistance Measurements:
<ul style="list-style-type: none">• Transformer Pole Ground Wire Resistance: 82 ohms• Meter Base Ground Rod Resistance: 90 ohms• Ground Rod Behind Pool Pump: 0.4 volts (measured with a low impedance multimeter)• Ground Rod to Pool Water: 0.6 volts (measured with a low impedance multimeter)
2. Voltage Measurements in Pool:
<ul style="list-style-type: none">• Using a low impedance multimeter, voltage readings taken at various locations in the pool were as follows:<ul style="list-style-type: none">• Slide: 0.4 volts• Ladder: 0.6 volts• Middle of the Pool: 1.1 volts
3. Isolation Testing:
<ul style="list-style-type: none">• Servicer Derrick McKinney disconnected the two hot legs and the ground leading to the house.• After disconnection, voltage readings were taken again with a low impedance multimeter:<ul style="list-style-type: none">• Slide: 0.4 volts• Ladder: 0.6 volts• Middle of the Pool: 1.1 volts
4. Cable Service Splice:
<ul style="list-style-type: none">• A voltage of 1.1 volts was recorded at the cable service splice located in the middle of the pool.
5. Customer Authorization:
<ul style="list-style-type: none">• The customer authorized the disconnection of the cable service at the secondary pole.• After this disconnection, voltage readings were as follows:<ul style="list-style-type: none">• Slide: 0 volts• Ladder: 0 volts• Middle of the Pool: 0.1 volts

Identified Causes

1. The pool may not have been bonded correctly during installation.
2. The cable service ground was not connected properly at the top of the secondary pole.

Recommended Actions

- The customer has scheduled a visit from their cable provider on **Thursday, September 12, 2024** to address the cable service grounding issue.

Next Steps

- Follow up with the customer after the cable provider's visit to ensure the issue has been resolved and to confirm that the tingling sensation has ceased.
- Continue monitoring the situation to ensure safety and satisfaction.

Action Items

- Document all findings and outcomes.
- Maintain open communication with the customer for any further assistance needed.



Customer sent me this picture at 8 pm. I checked the date on the picture and this was taken February of this year.

UPDATE 9/12/2024:

Date of Meeting: September 12, 2024

Attendees: Travis Burton, Darius Jackson, Derrick McKinney, Craig Bowe

Purpose of Meeting

To address the customer's concern regarding persistent voltage in the pool following our previous visit.

Key Observations and Actions Taken

1. Customer's Report:
<ul style="list-style-type: none">The customer reported that the pool continued to show voltage on the same night of our last visit.
2. Testing Conducted:
<ul style="list-style-type: none">We performed additional testing, including:<ul style="list-style-type: none">Ground Wire Assessment: We squeezed the ground wires together on the grounding rod located behind the pool pump and heating/cooling units. The resistance measurements ranged from 500 ohms to 1500 ohms.Circuit Breaker Panel Testing: Travis tested the ground in the circuit breaker (CB) panel and observed loop current present on the ground inside the panel.
3. Voltage Verification:
<ul style="list-style-type: none">Despite thorough testing, we were unable to locate any sources of voltage close to the 2.19 volts noted in the picture provided by the customer.

Conclusion

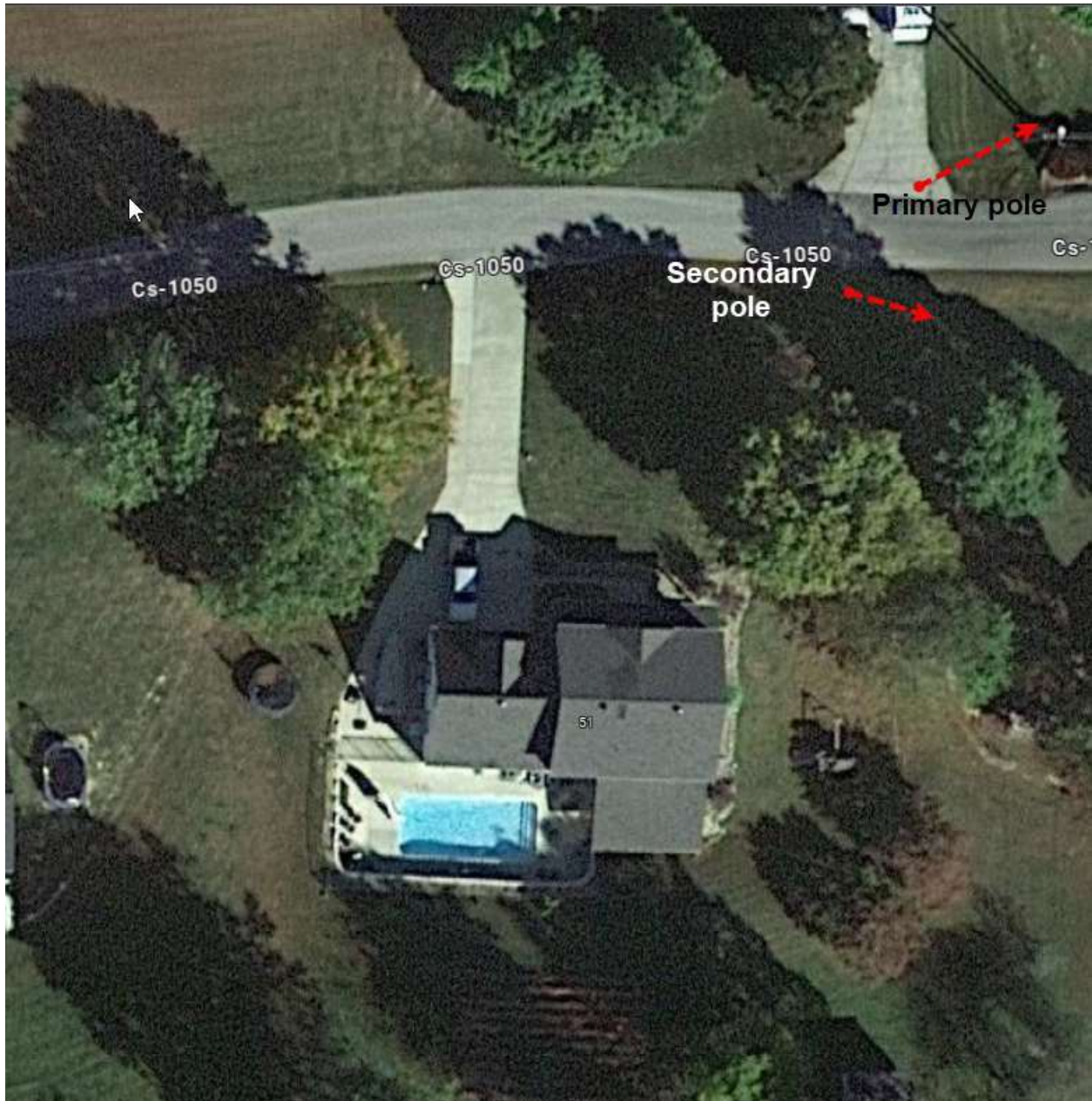
The team conducted extensive testing to address the voltage issue reported by the customer. Further investigation may be required to identify the source of the voltage in the pool area.

Next Steps

- Recommend the customer monitor the situation and report any changes.
- Consider scheduling a follow-up visit if voltage issues persist or if additional concerns arise.

Action Items

- Document all findings and ensure follow-up as necessary.
- Keep communication open with the customer for any further assistance required.



UPDATE 09/27/2024:

The customer reported an issue with the neutral connection. A voltage recorder was installed and subsequently removed on September 23, 2024. Unfortunately, the recorder failed during the monitoring period. A new voltage recorder was installed and pulled on September 27, 2024, and the data collected indicates that the power quality to the home is satisfactory, with no indications of a neutral issue.

UPDATE: 11/6/2024

Summary of Final Visit with Mr. Peterman

Date of Visit: 11/6/2024

Attendees: Phil Tolliver, Travis Burton, Derrick McKinney, Craig Bowe, Mr. Peterman (Homeowner)

Purpose of Visit

To verify the source of voltage issues reported by Mr. Peterman, as he expressed skepticism regarding previous communications.

Key Points Discussed

1. Homeowner's Assertion:

- Mr. Peterman reported that he identified the issue on **November 5, 2024**, claiming that the disconnection of the neutral from the meter base resulted in the voltage dropping to zero.
- I clarified that such a disconnection would not cause a total voltage drop and that further investigation was necessary.

2. Testing Conducted:

- We conducted a thorough examination around the property:
 - **Neutral Testing:** No voltage was detected on the neutral in the meter base.
 - **Water Testing:** A reading of **0.6 volts** was observed from the pool water to the cable connection on the house.

3. Homeowner's Confusion:

- Mr. Peterman expressed confusion regarding the absence of voltage, suggesting he might fill in the pool.

4. Proposed Action:

- We aimed to guide Mr. Peterman towards a resolution for his voltage issue.
- After obtaining Mr. Peterman's consent, we proceeded to isolate the power line by cutting the two hot wires and the neutral at the secondary pole.
- Derrick McKinney executed the disconnection.

5. Post-Isolation Testing:

- After isolation, Travis and I re-evaluated the situation with Mr. Peterman:
 - Confirmed that power was indeed off to the meter base.
 - Verified that there was **0 volts** between the pool water and the neutral.
 - Tested the voltage from the pool water to the cable splitter:
 - **0.8 volts** with the resistor (which eliminates ghost voltage).
 - **1.05 volts** without the resistor.

6. Conclusion:

- Phil Tolliver inquired if Mr. Peterman agreed that the voltage was not originating from our service to which Mr. Peterman concurred.