C-2024-3048979
PPL Late-filed Exhibits 13 & 14
Docketed per ALJ Request

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File #: 206283

November 13, 2024

VIA EMAIL (PMCNEAL@PA.GOV)

Honorable Eranda Vero
Administrative Law Judge
PA Public Utility Commission
801 Market Street
Suite 4063
Philadelphia, PA 19107

Re: Peter Mancuso v. PPL Electric Utilities Corporation
Docket No. C-2024-3048979

Dear Judge Vero:

Attached are copies of PPL Electric Utilities Corporation's ("PPL Electric") late-filed Exhibit Nos. 12 and 13 in the above-referenced proceeding. The late-filed exhibits are being submitted pursuant to Your Honor's directive during the September 17, 2024, evidentiary hearing in the above-referenced proceeding. Copies will be provided as indicated on the Certificate of Service.

Please direct any questions to the undersigned.

Respectfully submitted,

Megan E. Rulli

MER/dmc
Attachments

cc: Rosemary Chiavetta, Secretary (*letter and Certificate of Service only*)
Certificate of Service

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

VIA EMAIL AND FEDERAL EXPRESS

Peter Mancuso
203 The Hideout
390 Lakewood Court #12
Lake Ariel, PA 18436
Golferpete1@yahoo.com

Date: November 13, 2024

Megan E. Rulli

PPL Electric Utilities In-Home Audit Report

Prepared for

PETER MANCUSO
390 LAKEWOOD CT
LAKE ARIEL, PA, 18436

Prepared by

Chris McMurray
Email: [redacted]
Phone:

Assessment And Workorder Number

10/17/2024
WRK-0262747

Your In-Home Audit

Congratulations on taking an important step toward making your home more energy efficient with a PPL Electric Utilities In-Home Audit! Your In-Home Audit is customized to identify the specific needs of your home based on the contractor's analysis. Your contractor will recommend measures to improve the performance of your home. By implementing these measures, you will

- Enjoy a more comfortable home
- Save money for years to come
- Help make our environment cleaner now and for future generations
- Improve your home's market value

Your in-home audit includes a comprehensive evaluation of your home, its physical structure, heating and/or cooling systems, appliances, and more. This report summarizes those findings and presents one or more recommendations to help you improve your home's energy efficiency and overall performance.

If you have any questions as you review the material, please contact your contractor.

Free Energy Saving Kit

By taking this first step, you are eligible to receive an energy efficiency kit. Below are the items included in your kit. Your free Energy Savings Kit will arrive within 4-6 weeks.

Description	Quantity
LED Nightlight	1
4.5w G25 Globe	2
8w A19 LED	2
Foam Outlet Gaskets	5
Smart Power Strip Tier 1	1

Customer Concerns

We listened to you and noted these concerns:

- Higher than expected bills especially during the winter.

Building Information

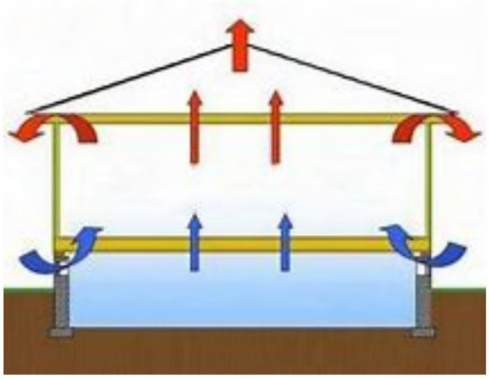
About Your Home			
Year Built	1985	**Square Footage**	1600
# of rooms	6	**# Floors**	1
Building Type	Single Family	**Foundation Type**	Slab
Siding Type	Lapped Siding	**Roofing Material**	Asphalt Shingles
Heating System			
Primary Heating Fuel	Propane	**Heating System Type**	Non-Electric Heating
Heating System Age	2018		
Cooling System			
Cooling System Type	Central A/C	**Cooling System Age**	2019
Water Heater			
Water Heater Fuel	Electric	**Water Heater Type**	Standard
Water Heater Age	2018	**Water Heater Tank Size**	50
Water Heater Temp	120	**Water Heater Set Back**	
Air Leakage			
Blower Door Test(CFM50)	2085	**Leakiness**	Leaky

PPL Electric Utilities Residential Program

The PPL Electric Utilities Residential Program offers great rebates to help customers improve the energy efficiency of their home. This section provides you with a comprehensive list of all rebates available to help you start your energy efficiency journey. When considering improvements, it is important to think of your home as an interactive system of components. Each part works individually but also in concert with the other parts of your home. This is known as the House-as-a-System approach. See “What is Home Performance?” at www.bpihomeowner.org to learn more.

Weatherization Measures

Air Sealing



Drafts through holes, gaps, and hidden cavities in your home can account for as much as 20% of the heating and cooling costs. By air-sealing, many of these uncomfortable and energy-wasting drafts can be stopped. Eliminating drafts will help the home's systems maintain the desired temperature throughout your home.

Contractor will assess the air leakage of your home by doing a blower door test. The test measures how much air is leaking from your house and helps identify areas where it is escaping.

Attic Insulation

Attic/ceiling insulation slows down heat transfer between your home and the outside, keeping you warmer in the winter and cooler in the summer. The attic is often the easiest and most cost-effective place to insulate because most provide good access to the areas that need insulation.

Attic ventilation is important for removing moisture from the attic to help prevent damage to insulation and roof structure. Your contractor may recommend attic ventilation in conjunction with any insulation and air sealing upgrades.

Weatherization Rebates

Measures	Available Rebates
Air Sealing	Up to $200
Attic Insulation	75% of cost max $200

HVAC Upgrade

Upgrading your HVAC systems can boost your home's energy efficiency. Heating and air conditioning account for as much as half of a typical home's energy use. If your system is more than 10 years old, it may be time to replace it with a high efficiency one. PPL Electric Utilities rebates make purchasing new ENERGY STAR® certified, high-efficiency heating and air conditioning equipment more affordable.

HVAC Recommendation(s)

Equipment	Efficiency Requirements	Available Rebates

Comprehensive Retrofit Bonuses*

Customers are eligible for an additional bonus when they install two or more major measures within one year.www.pplelectric.com/retrofit

Comprehensive Retrofit Bonuses*	Requirements	Available Bonus
Tier 1	At least 2 major measures installed within one year or each other. One measure must be a weatherization measure	$250
Tier 2	At least 3 major measures installed within one year or each other. One measure must be a weatherization measure	$350

*Comprehensive Retrofit Bonuses – Major measures are: Air Sealing, Attic Insulation, Basement Wall Insulation, Air Source Heat Pump, Central AC, Ductless Mini-Split, Heat Pump Water Heater.

Deep Energy Retrofit Pilot Bonus

Considering 3 or more upgrades? Our $500 Deep Energy Retrofit Pilot Bonus can be combined with individual rebates to maximize your savings. A lead contractor will assess your home and create a personalized project plan for you. This $500 bonus cannot be combined with the Comprehensive Retrofit Bonus. This offer is available for a limited time. Learn more:www.pplelectric.com/retrofitpilot

Additional Ways to Save with PPL Electric Utilities

Retail Instant Discounts

PPL Electric Utilities offers instant rebates on select weatherization products and small appliances at participating retail locations.

Online Marketplace

PPL Electric Utilities offers instant rebates on select weatherization products, smart thermostats and appliances.You can visit the our Online Marketplace on our website at www.pplelectric.com/marketplace.

Appliance Rebates

Measures	Requirements	Available Rebates
Refrigerator	ENERGY STAR Certified	$50
Dehumidifier	ENERGY STAR Certified	$25
Smart Thermostats*	ENERGY STAR Certified	$50 (Self-Installed) $100 (Installed by Participating Trade Ally)

*Must have air-source heat pump, fossil fuel heating with central A/C, or electric furnace with central A/C (neither baseboard heating, geothermal nor ductless heat pumps are eligible).Visit www.pplelectric.com/rebates for more information.

Appliance Recycling

PPL Electric Utilities does not only provide rebates on energy efficient appliances, but we also help you properly disposed of some of your old inefficient appliances. If you are replacing an old refrigerator or freezer, PPL Electric Utilities will pick up the old unit at no cost to you and will send you a rebate! We will also pick up an old room AC or old dehumidifier at the same time of picking up your old refrigerator or freezer. To schedule your free pick-up, visit our website at: www.pplelectric.com/recycle/

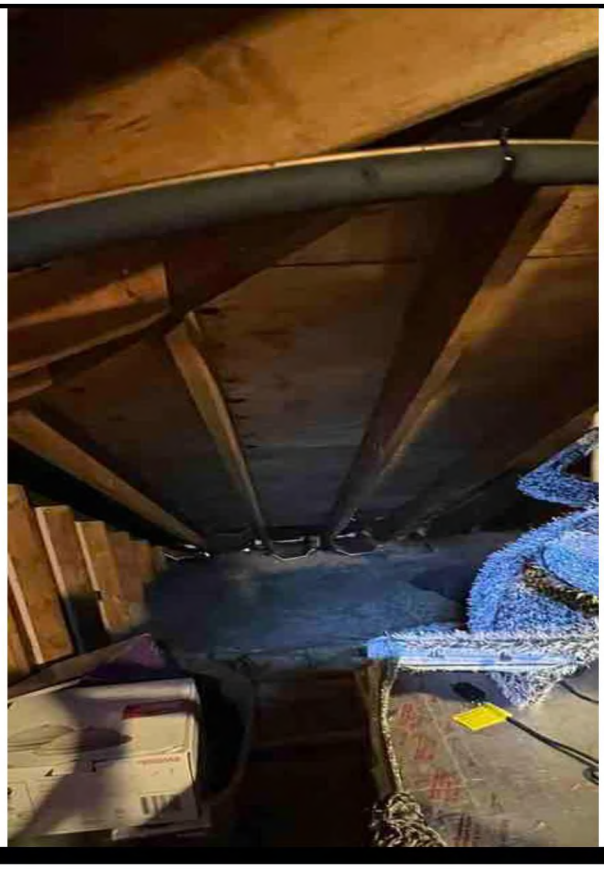
Appliance Type	Available Rebates
Refrigerator	$50 for limited time (usually $35)
Freezer	$50 for limited time (usually $35)
Room A/C	$10
Dehumidifier	$10

Thank you for participating in a PPL Electric Utilities Residential Energy Efficiency Program. For more information, please visit our website at: www.pplelectric.com/savings or contact us at 1-877-486-9204.

Photo Notes

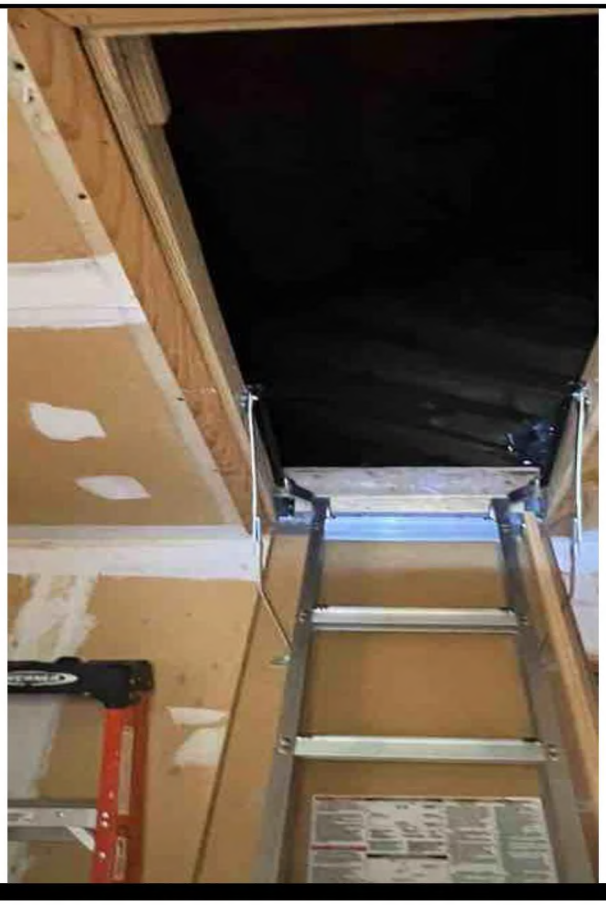
Ensure WaterHeater top is clear of items. Remove items as needed

House has higher than average ACH (Air Changes per Hour) . Provide additional Insulation & Air seal to reduce ACH. Weatherstrip at exterior doors as needed.



Attic insulation is less than advisable . Provide additional Insulation & Air seal to increase efficiency & reduce ACH.

Thermal image shows air infiltration at wall tops. Insulate & air-seal at attic to reduce air infiltration.



Weatherize Attic hatch with WeatherStripping or Attic Hatch tent to reduce air infiltration

Powered By
AEW HP² Estimator™

In this Report

1) Your Home details and facts
2) Solutions for your home
3) Health & Safety findings

NEIF Pre-Qualified Credit

N/A	Apply

National Energy Improvement Fund

Your Custom **Elite Advanced Efficiency Worx** Energy Assessment

Prepared for:

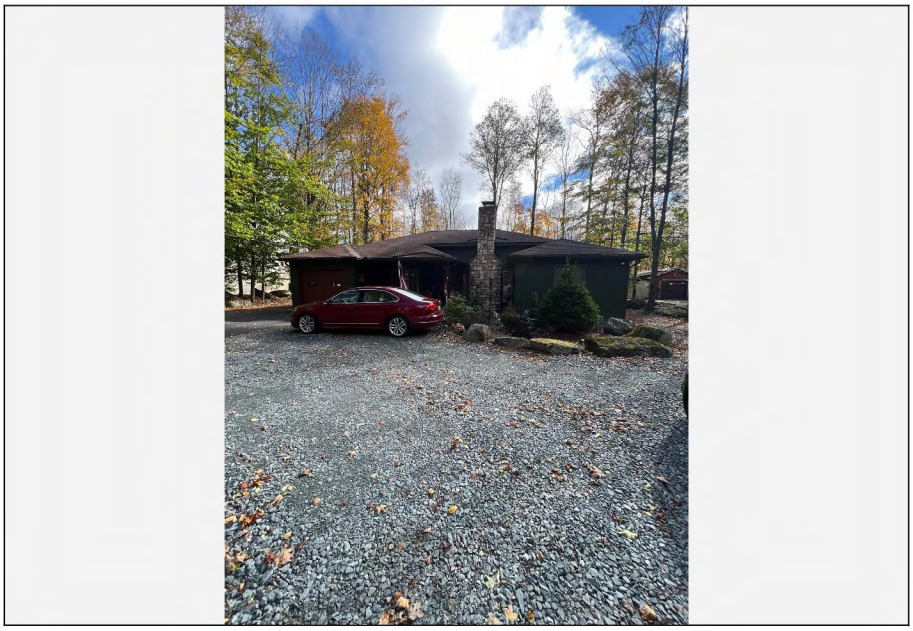
Peter Mancuso
390 Lakewood Ct
Lake Ariel, PA 18436
[redacted]

Audit Date

10/16/2024
11:00:00 AM

Assessment by:

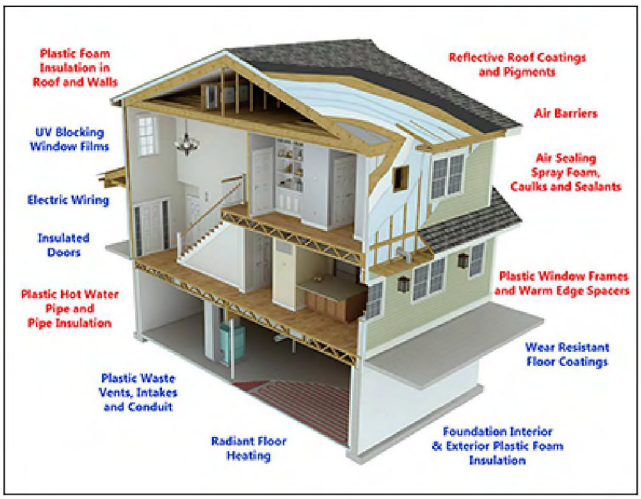
Chris McMurray
[redacted]



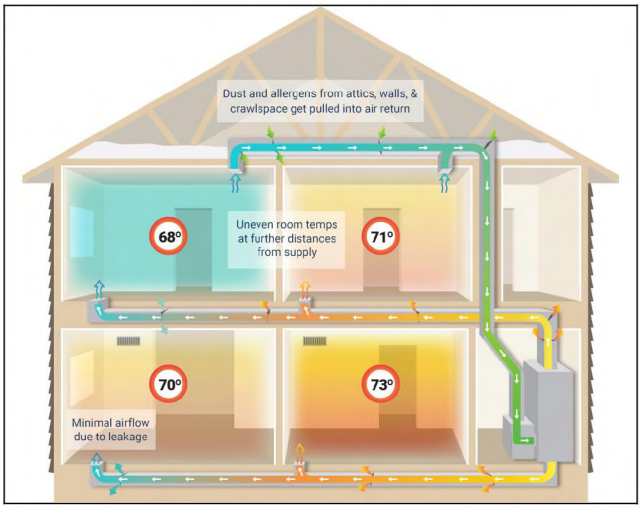
Where To Look On Your Report

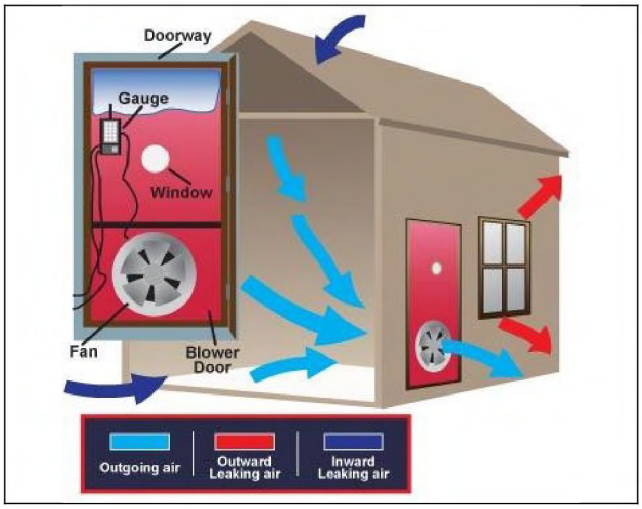
ADVANCED EFFICIENCY WORK

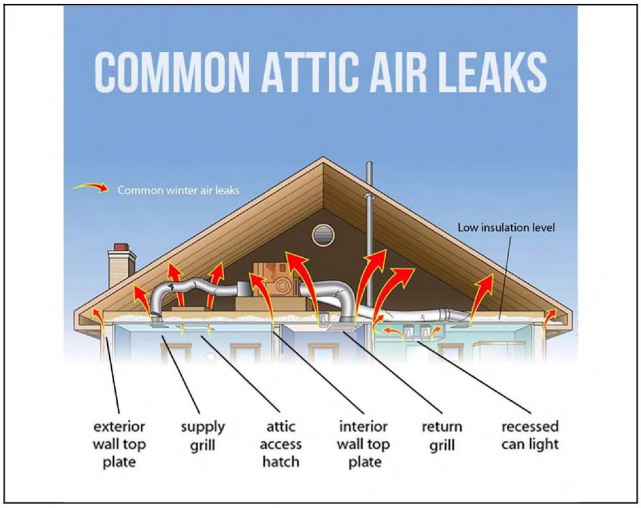
Congratulations on taking an important step toward making your home more energy effcient. We hope you have found the our services - so far - to be helpful and the information our crew shared with you useful. This report provides information to help you understand your energy useage as well as tips and recommendations to help you save more on your energy bill.


Plastic Foam Insulation in Roof and Walls
Reflective Roof Coatings and Pigments
Air Barriers
UV Blocking Window Films
Air Sealing Spray Foam, Caulks and Sealants
Electric Wiring
Insulated Doors
Plastic Window Frames and Warm Edge Spacers
Plastic Hot Water Pipe and Pipe Insulation
Wear Resistant Floor Coatings
Plastic Waste Vents, Intakes and Conduit
Radiant Floor Heating
Foundation Interior & Exterior Plastic Foam Insulation


PLUMBING STACK VENT
RECESSED LIGHTS
ATTIC HATCH
RECESSED LIGHTS
CHASE
KITCHEN FAN VENT
ELECTRICAL OUTLET
DRYER VENT
CRAWL SPACE
OUTDOOR FAUCET
Air leaking into the house from outdoors.
Air leaking from inside the house to the outside.

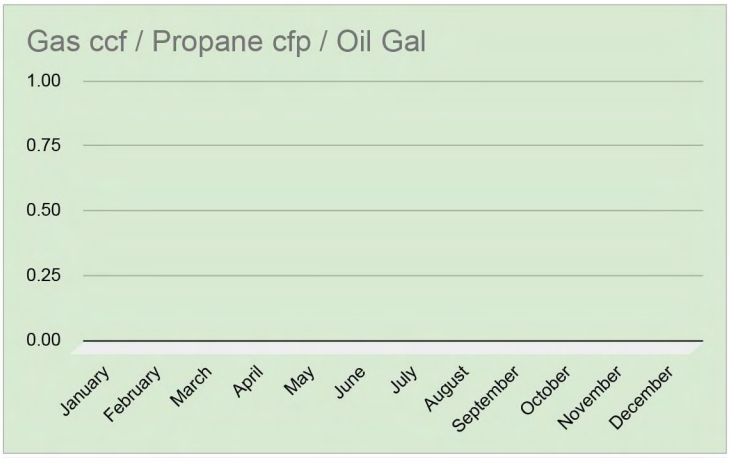

Dust and allergens from attics, walls, & crawlspace get pulled into air return
68°
Uneven room temps at further distances from supply
71°
70°
73°
Minimal airflow due to leakage


Doorway
Gauge
Window
Fan
Blower Door
Outgoing air
Outward Leaking air
Inward Leaking air


COMMON ATTIC AIR LEAKS
Common winter air leaks
Low insulation level
exterior wall top plate
supply grill
attic access hatch
interior wall top plate
return grill
recessed can light


energy
HOME PERFORMANCE WITH ENERGY STAR

Energy Usage

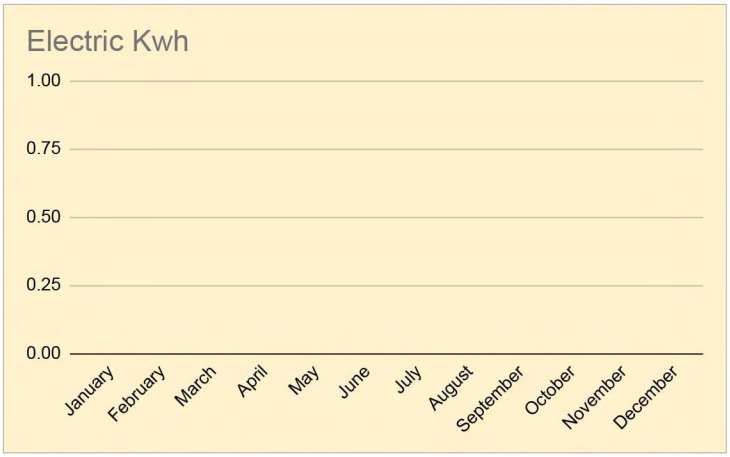


Fuel Utility Provider **Propane**

Fuel Account Number [redacted]

Total Fuel Usage

CO2 Production tons/year



Electrical Utility Provider **PPL**

Electrical Account Number [redacted]

Total Kwh Usage

CO2 Production tons/year

FUELS	Baseline	Improved	Saved
Gas / Propane Energy Usage /year			
Electrical Energy Usage / Year			
METRIC			
Electric Energy Usage kWh/year	0 KWh		0 KWh
Total Energy Usage MMBtu/year			#VALUE!
Fuel Energy Cost $/year			$ -
Electric Energy Cost $/year	$ -		$ -
Total Energy Cost $/year	$ -		$ -
CO2 Production Tons/year			0
SAVINGS			**Estimated**
Payback years			
Total Energy Savings			
Total Carbon Savings			
Net Savings to Investment Ratio SIR			
Net Annualized Return MIRR			
TEMPS		**Outdoor**	**Indoor**
Winter Design Temperature			
Summer Design Temperature			

Area of Concerns & Opportunity	Potential Solutions
Attic - Seal Chaseways	
Interior - Caulk Baseboards	Air leaking
Attic - Air Seal Penetrations	CH - structure has significant leaks - Plumbing and Electrical pene
Attic - Weatherstrip Hatch	Attic Hatch opening allowing air-infiltration.
**** INTERIOR ****	ll Whole House Energy Monitor - [Emporia Vue] - Validate loss sou
Attic - Add Insulation	Increase R-Vlue from 35-49
Attic - Seal Walltops	
Attic - Floor Densepack	Dense Pack floored attic area
**** INTERIOR ****	Air Dam - Fireplace (When not in use)

Notes

House has higher than average ACH (Air Changes per Hour) - which equals higher energy use. To reduce ACH, address the following areas of concern:

Audit Results and Conditions

↓	Floors ↓	Year Built ↓	N/S/E/W ↓	Roof Type ↓	Siding Type ↓
	1	1985	SW	Shingles	Wood Siding
↓	Avg Ceiling ↓	Conditioned SF ↓	Volume ↓	Bedrooms ↓	Occupants ↓
	8	1600	12800	2	1

1600					
Fuel Type ↓	Pass/Fail ↓	CO in Vent ↓	Year Installed ↓	Manufacturer ↓	
Propane	Other	N/A	2018	Rheem	
Unit Type ↓	HVAC Temp ↓	Capacity ↓	Eff % ↓	Model ↓	
Forced Air H/AC	-	75000	80%	R801SA075417MSA	
NG Available ? ↓	Duct R-Value ↓	Location ↓	BTU/h ↓	Thermostat Type ↓	
No	4.2	Attic	75000	Non-Programmable	
HVAC Equipment Cooling					
Unit Type ↓	Location ↓	Capacity	Year Installed ↓	Condensor Model ↓	
Forced Air H/AC	Exterior	2 ton	2019	WA1324AJINA	
DHW Equipment					
Fuel Type ↓	Pass/Fail ↓	CO in Vent ↓	Year Installed ↓	Manufacturer ↓	
Electricity	Other	N/A	2018	Bradford White	
Unit Type ↓	Relief Pipe ↓	Capacity ↓	Eff % ↓	Model ↓	
Tank	Yes	50 gal	100%	M250S6DS-1NCWW	
Temperature	Pipe R-Value ↓	Location ↓	Replace? ↓	Replacement Suggestion	
120	0	Closet			
Blower Door					
CFM50 Closed ↓	CFM50 Open ↓	ACH	CFM Pa	Leakiness	
2085	-	9	-50	Leaky	
Zonals					
Garage ΔP↓	Attic ΔP ↓	CAZ ΔP ↓	Basement ΔP ↓	Kneewall ΔP ↓	Bedroom ΔP ↓
-	-	-	-	-	-
Pan					
LR ↓	Hall ↓	MBR ↓	BR 1 ↓	BR 2 ↓	BR3 ↓
-	-	-	-	-	-
Ventilation					
Master Bath ↓	Hall Bath ↓	Guest Bath ↓	1/2 Bath ↓	Range Hood ↓	Other ↓
Y	Y	-	-	Y	
Measurments					
Basement ↓	Crawl ↓	Slab ↓	Attic 1 Floored Area	Attic 2 Floored Area	Insulation Quality ↓
	-	-	1350	-	Fair
Basement SF ↓	Crawl SF ↓	Slab SF ↓	Attic Access Type	Attic Access Type	
NA	-	1350	Pull-Down Stair		
Appliances					
Dryer Fuel ↓	Washer Type ↓	Fridge Age ↓	Range Fuel ↓	Dishwasher ↓	↓ 1
↓ 2	↓ 3	↓ 4	↓ 5	↓ 6	↓ 7

Glossary

1 Annual Fuel Utilization Eciency (AFUE)

The measure of seasonal or annual eciency of a residential heating furnace or boiler. It takes into account the cyclic on/o operation and associated energy losses of the heating unit as it responds to changes in the load, which in turn is aected by changes in weather and occupant controls.

2 Asbestos

Asbestos is a mineral ber that has been used commonly in a variety of building construction materials for insulation and as a re-retardant, but is no longer used in homes. When asbestos-containing materials are damaged or disturbed by repair, remodeling or demolition activities, microscopic bers

3 Btu - British Thermal Unit

The amount of heat required to raise the temperature of one pound of water one degree Fahrenheit; equal to 252 calories.

4 CO - Carbon Monoxide

A colorless, odorless but poisonous combustible gas with the formula CO. Carbon monoxide is produced in the incomplete combustion of carbon and carbon compounds such as fossil fuels (i.e. coal, petroleum) and their products (e.g. liqueed petroleum gas, gasoline), and biomass.

5 CAZ - Combustion Appliance Zone

A contiguous air volume within a building that contains a combustion appliance such as furnaces, boilers, and water heaters; the zone may include, but is not limited to, a mechanical closet, mechanical room, or the main body of a house, as applicable.

6 CFM - Cubic Feet per Minute

A measurement of airow that indicates how many cubic feet of air pass by a stationary point in one minute.

7 CO2 - Carbon Dioxide

A colorless, odorless noncombustible gas that is present in the atmosphere. It is formed by the combustion of carbon and carbon compounds (such as fossil fuels and biomass). It acts as a greenhouse gas which plays a major role in global warming and climate change

8 EER - Energy Efficiency Ratio

The measure of the energy eciency of room air conditioners: cooling capacity in Btu/hr divided by the watts consumed at a specic outdoor temperature.

9 EF - Energy Factor

The measure of eciency for a variety of appliances. For water heaters, the energy factor is based on three factors: 1) the recovery eciency, or how eciently the heat from the energy source is transferred to the water; 2) stand-by losses, or the percentage of heat lost per hour from the stored

10 HSPF - Heating Seasonal Performance Factor

The measure of seasonal eciency of a heat pump operating in the heating mode. It takes into account the variations in temperature that can occur within a season and is the average number of Btu of heat delivered for every watt-hour of electricity used

11 HRV - Heat Recovery Ventilator / ERV - Energy Recovery Ventilator

A device that captures the heat or energy from the exhaust air from a building and transfers it to the supply/fresh air entering the building to preheat the air and increase overall heating eciency while providing consistent fresh air.

12 N-Factor

A factor of how susceptible your house is to wind, inuenced by weather patterns, location, and the number of doors in the home.

13 ACH - Air Changes per Hour

The number of times in one hour the entire volume of air inside the building leaks to the outside naturally.

14 Payback Period

The amount of time required before the savings resulting from your system equal the system cost.

15 R-Value

A measure of the capacity of a material to resist heat transfer. The R-Value is the reciprocal of the conductivity of a material (U-Value). The larger the RValue of a material, the greater its insulating properties

16 Radon

A naturally occurring radioactive gas found in the U.S. in nearly all types of soil, rock, and water. It can migrate into most buildings. Studies have linked high concentrations of radon to lung cancer.

17 Rim Joist

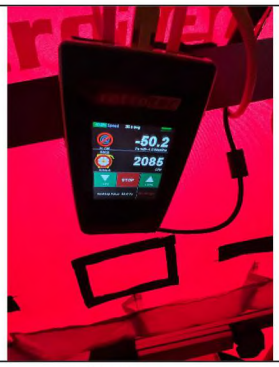
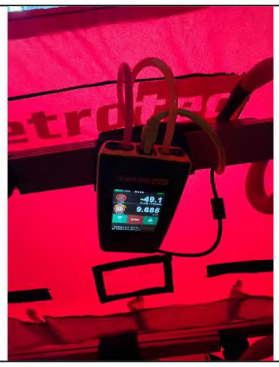
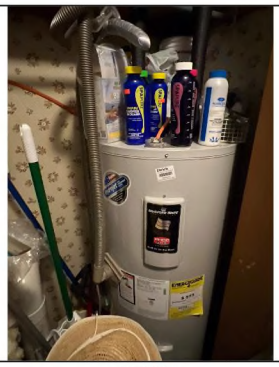
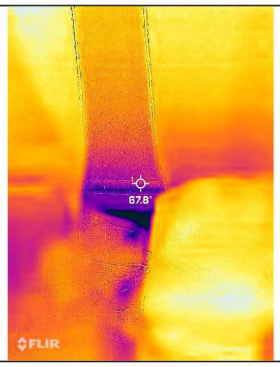
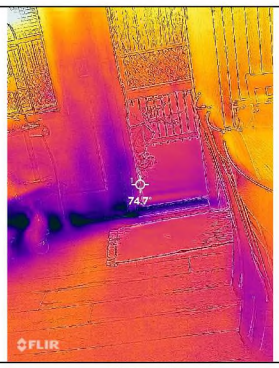
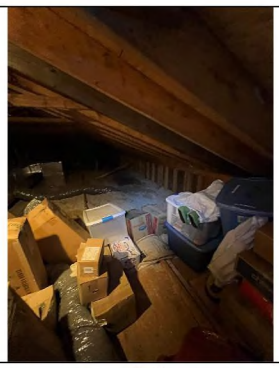
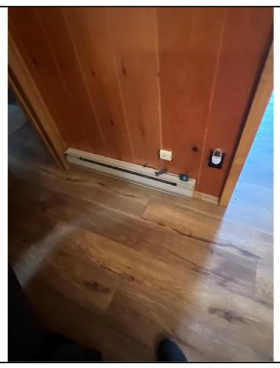
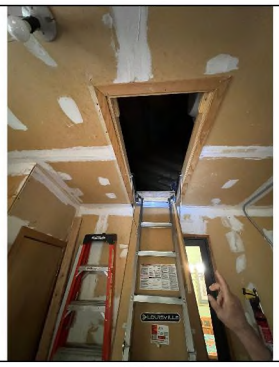
In the framing of a deck or building, a rim joist is the nal joist that caps the end of the row of joists that support a oor or ceiling. A rim joist makes up the end of the box that comprises the oor system.

18 SEER - Seasonal Energy Efficiency Ratio

A measure of seasonal or annual eciency of a central air conditioner or air conditioning heat pump. It takes into account the variations in temperature that can occur within a season and is the average number of Btu of cooling delivered for every watt-hour of electricity used by the

19 SIR - Savings Investment Ratio

A ratio used to determine whether a project that aims to save money in the future is worth doing. The ratio compares the investment that is put in now with the amount of savings from the project.

		
↑ CFM Manometer ↑	↑ ACH ↑	HVAC
		
↑ Thermostat ↑	↑ DHW ↑	Air Leak
		
Air Leak	Insulation	HVAC
		
Attic		

AEW HP² Estimator™

Name on Utility Bill ↓

Customer →	Peter Mancuso				
Address →	390 Lakewood Ct		Lake Ariel	PA	18436
Audit Date →	10/16/2024	**Time →**	11:00:00 AM	**Assessor →**	Chris McMurray
Phone →	[redacted]		**Home Type →**	Single Family Home	
↓	Floors ↓	Year Built ↓	N/S/E/W ↓	Roof Type ↓	Siding Type ↓
	1	1985	SW	Shingles	Wood Siding
↓	Avg Ceiling ↓	Conditioned SF ↓	Volume ↓	Bedrooms ↓	Occupants ↓
	8	1600	12800	2	1

# →	[redacted]	
Electric Utility →	PPL	
	← Bill Received	
# →		
Fuel Utility →	Propane	
	← Bill Received	

1 HVAC Equipment Heating

Fuel Type ↓	Pass/Fail ↓	CO in Vent ↓	Year Installed ↓	Manufacturer ↓
Propane	Other	N/A	2018	Rheem
Unit Type ↓	HVAC Temp ↓	Capacity ↓	Eff % ↓	Model ↓
Forced Air H/AC	-	75000	80%	R801SA075417MSA
NG Available ? ↓	Duct R-Value ↓	Location ↓	BTU/h ↓	Thermostat Type ↓
No	4.2	Attic	75000	Non-Programmable

HVAC Heating Equipment passes inspection and analysis.
Continue to Change Filters Before Heating and Cooling Seasons
Have Systems Serviced Annually for maximum efficiency

2 HVAC Equipment Cooling

Unit Type ↓	Location ↓	Capacity	Year Installed ↓	Condensor Model ↓
Forced Air H/AC	Exterior	2 ton	2019	WA1324AJINA

DHW Equipment

Fuel Type ↓	Pass/Fail ↓	CO in Vent ↓	Year Installed ↓	Manufacturer ↓
Electricity	Other	N/A	2018	Bradford White
Unit Type ↓	Relief Pipe ↓	Capacity ↓	Eff % ↓	Model ↓
Tank	Yes	50 gal	100%	M250S6DS-1NCWW
Temperature	Pipe R-Value ↓	Location ↓	Replace? ↓	Replacement Suggestion
120	0	Closet		

HVAC Cooling Equipment passes inspection and analysis.
Water Tank has No Signs of Corrosion, Rust, or Failure.

(Please ensure top of Water Heater is clear of items. Remove items as needed)

NEIF Pre-Qualified Credit

N/A	**Apply**

4 Blower Door

CFM50 Closed ↓	CFM50 Open ↓	ACH	CFM Pa	Leakiness	
2085	-	9	-50	Leaky	

5 Zonals

Garage ΔP↓	Attic ΔP ↓	CAZ ΔP ↓	Basement ΔP ↓	Kneewall ΔP ↓	Bedroom ΔP ↓
-	-	-	-	-	-

6 Pan

LR ↓	Hall ↓	MBR ↓	BR 1 ↓	BR 2 ↓	BR3 ↓
-	-	-	-	-	-

7 Ventilation

Master Bath ↓	Hall Bath ↓	Guest Bath ↓	1/2 Bath ↓	Range Hood ↓	Other ↓
Y	Y	-	-	Y	

8 Measurments

Basement ↓	Crawl ↓	Slab ↓	Attic 1 Floored Area	Attic 2 Floored Area	Insulation Quality ↓
	-	-	1350	-	Fair
Basement SF ↓	Crawl SF ↓	Slab SF ↓	Attic Access Type	Attic Access Type	
NA	-	1350	Pull-Down Stair		

9

OS Temp ↓	IS Temp ↓
Cooling Low ↓	Cooling High ↓
Heating Low ↓	Heating High ↓
↓	↓
↓	↓

Customer	Peter Mancuso

10		
	CompanyCam	[redacted]
	Customer Email	[redacted]

Window Count

11	QTY	Room	Type

12	Insulation Levels				
	Primary Attic ↓	Secondary Attic ↓	Rim Joist ↓	Basement Ceiling ↓	Crawl Space Joist ↓
Inches	10	-	-	-	-
Existing R-Value	**35**				
LF | SQ	1350				
Needed Inch(s)	**4**	**14**		**11**	**11**
New R-Value	**49**	**49**	**0**	**38**	**38**
Cellulose	**YES**			☐	☐
Fiberglass				☐	☐

13 Pic Taken		Thermal
	Yard Sign	N/A
	Gas Leak Test	N/A
YES	Front / Back / Sides OS	YES
YES	AC Compressor	N/A
YES	AC Compressor Plate	N/A
YES	Thermostat	N/A
YES	Furnace	
YES	Furnace Plate	N/A
YES	Water Heater	
YES	Water Heater Plate	N/A
	Combustion Furnace	
	Combustion DHW	
	DHW and/or Boiler Pipes	
	Rim Joist	
	Basement Penetrations	
	Basement Insulation	
YES	Attic Hatch	
YES	Attic Penetrations	
YES	Attic Chaseways	
YES	Attic Soffits	
YES	Insulation Levels	
YES	Electric Bill	N/A
	Gas/Oil Bill	N/A
YES	CFM @50	N/A
YES	ACH @50	N/A
	CFM Basement/Attic Door Open	N/A
	CFM Basement/Attic Door Closed	N/A

14
Dryer Fuel ↓
Washer Type ↓
Fridge Age ↓
Range Fuel ↓
Dishwasher ↓
↓ 1
↓ 2
↓ 3
↓ 4
↓ 5
↓ 6
↓ 7

Chris McMurray
[redacted]

House has higher than average ACH (Air Changes per Hour) - which equals higher energy use. To reduce ACH, address the following areas of concern:

Attic:
- Primary insulation & air-sealing is less than advisable. (Increase Insulation & Air-Seal to reduce ACH)
- Attic Hatch opening allowing air-infiltration. (Weatherize Hatch to reduce infiltration)

VERIFICATION

I, MARY ANN KELLY-MERENDA, being the Program Manager – Energy Efficiency Programs at PPL Electric Utilities Corporation, hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief and that I expect PPL Electric Utilities Corporation to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Date: 11/13/2024

Mary Ann Kelly-Merenda

Mary Ann Kelly-Merenda

PPL Electric Exhibit 13

Historic Usage Comparison for Complainant's Account

Notes:

1. PPL Electric only has complete records of the Complainant's historic usage dating back to July 2020. The data in this Exhibit is drawn from PPL Electric Exhibits 1 and 11.

2. The energy audit conducted October 16, 2024, found that the Complainant's propane heating system was installed in 2018. See PPL Electric Exhibit 12.

Table 13.1 - Historic Usage Comparison 2016 to 2024

	Historic Usage (in kWh)								
Bill Issued	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
January		4699				2467	2210	1971	1697
February		3526				2703	2066	1873	1547
March		3423				1860	1375	1731	1563
April		2781				1387	1341	1440	1750
May		1949				1257	1108	1361	1533
June		1325				1492	1268	1328	1240
July		1035			2098	1138	1521	2017	
August		977	988		1753	1039	974	1236	
September	408	1203			1513	1075	944	1277	
October	1620	981			1585	990	1032	1238	
November	2552	1928			2218	1625	1243	1256	
December	3203	2771			2885	1629	1955	1731	

Table 13.2 - Usage Comparison 2017 vs. 2021

	Historic Usage (in kWh)		
Bill Issued	**2017**	**2021**	**Difference**
January	4699	2467	2232
February	3526	2703	823
March	3423	1860	1563
April	2781	1387	1394
May	1949	1257	692
June	1325	1492	-167
July	1035	1138	-103
August	977	1039	-62
September	1203	1075	128
October	981	990	-9
November	1928	1625	303
December	2771	1629	1142

Table 13.3 - Usage Comparison 2017 vs. 2022

	Historic Usage (in kWh)		
Bill Issued	**2017**	**2022**	**Difference**
January	4699	2210	2489
February	3526	2066	1460
March	3423	1375	2048
April	2781	1341	1440
May	1949	1108	841
June	1325	1268	57
July	1035	1521	-486
August	977	974	3
September	1203	944	259
October	981	1032	-51
November	1928	1243	685
December	2771	1955	816

Table 13.4 - Usage Comparison 2017 vs. 2023

	Historic Usage (in kWh)		
Bill Issued	**2017**	**2023**	**Difference**
January	4699	1971	2728
February	3526	1873	1653
March	3423	1731	1692
April	2781	1440	1341
May	1949	1361	588
June	1325	1328	-3
July	1035	2017	-982
August	977	1236	-259
September	1203	1277	-74
October	981	1238	-257
November	1928	1256	672
December	2771	1731	1040

Table 13.5 - Usage Comparison 2017 vs. 2024

	Historic Usage (in kWh)		
Bill Issued	**2017**	**2024**	**Difference**
January	4699	1697	3002
February	3526	1547	1979
March	3423	1563	1860
April	2781	1750	1031
May	1949	1533	416
June	1325	1240	85
July	1035		
August	977		
September	1203		
October	981		
November	1928		
December	2771		

VERIFICATION

I, Holly Hankerson, being the Senior-Customer Service Representative at PPL Electric Utilities Corporation, hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief and that I expect PPL Electric Utilities Corporation to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Date: 11/13/2024

Holly Hankerson

Holly Hankerson