

# AFFORDABLE COMFORT AND SAVINGS FOR YOUR HOME

CLEAN HEATING AND COOLING SOLUTIONS & ENERGY EFFICIENCY

Wednesday, July 26th - Cortlandt Town Hall



# ABOUT SUSTAINABLE WESTCHESTER



# HOUSING IN WESTCHESTER

## Old housing stock

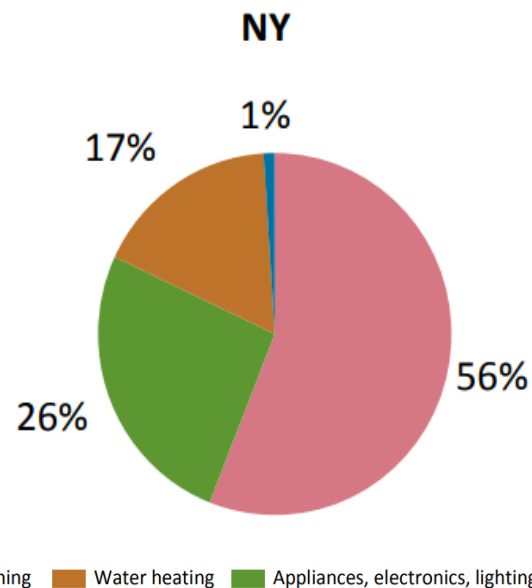
- New York: some of the oldest houses nationwide!
  - Median age: 66 years
  - Source: [U.S. Census](#)

## Heating and cooling our homes

- 57% of NY home energy consumption
  - Source: [EIA](#)
- Largest home energy expense!

Source: U.S.E.I.A. 2009 RECS State Briefs

### Consumption by End Use



# WHY IS NEW YORK GOING ELECTRIC?

- **Saving energy and money:** choosing more energy-efficient systems and appliances reduces energy waste (less money spent!)
- **Extreme weather** can damage energy and home infrastructure
- **Improving health and comfort:** insulation and electric heating/cooling improves air quality and moisture balance





# HEALTH IMPACTS



**Inadequate ventilation**, which increases exposure to indoor and outdoor air pollution and increases moisture and mold, is associated with an increased risk of respiratory symptoms, cardiovascular disease, and cancer;<sup>7</sup>



**Improper heating and cooling** combine with temperature extremes from climate change that can exacerbate illnesses or cause death;<sup>9</sup>



**Indoor moisture and mold** contribute to respiratory diseases, such as asthma;<sup>6</sup>



**Pests, such as cockroaches and rodents**, are connected to a range of communicable and respiratory diseases;<sup>8</sup>



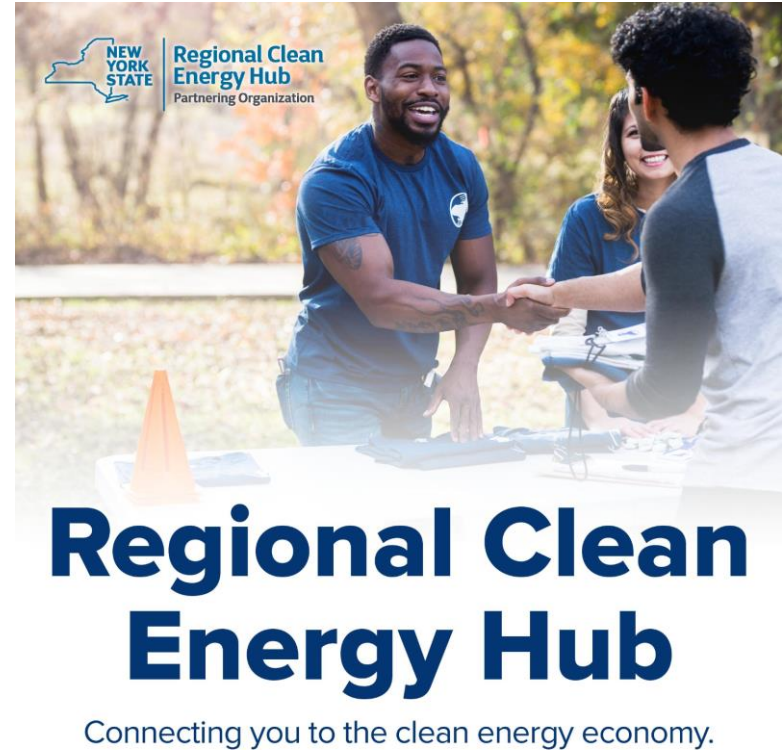
**Stress from unhealthy housing conditions** can have mental health impacts, including depression.<sup>10</sup>



# EnergySmart Homes Insulation & Heat Pumps

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# MID-HUDSON REGIONAL CLEAN ENERGY HUB



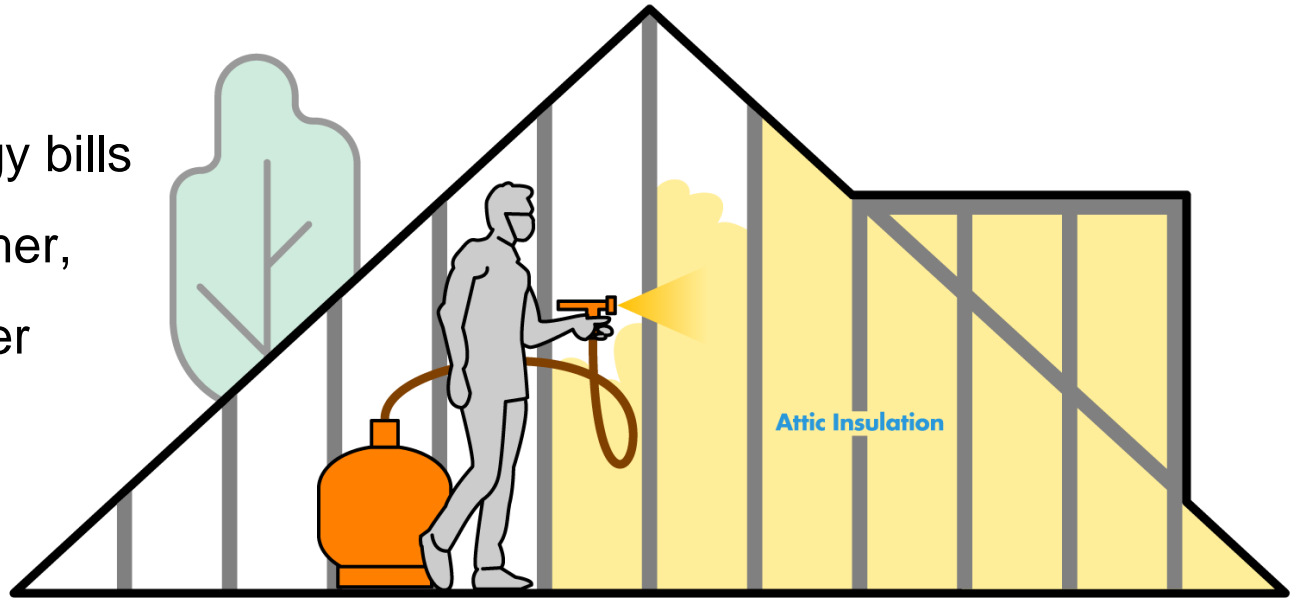
Learn more at [MidHudsonEnergyChoices.org](https://MidHudsonEnergyChoices.org)



# HOME ENERGY EFFICIENCY/ WEATHERIZATION

## BENEFITS

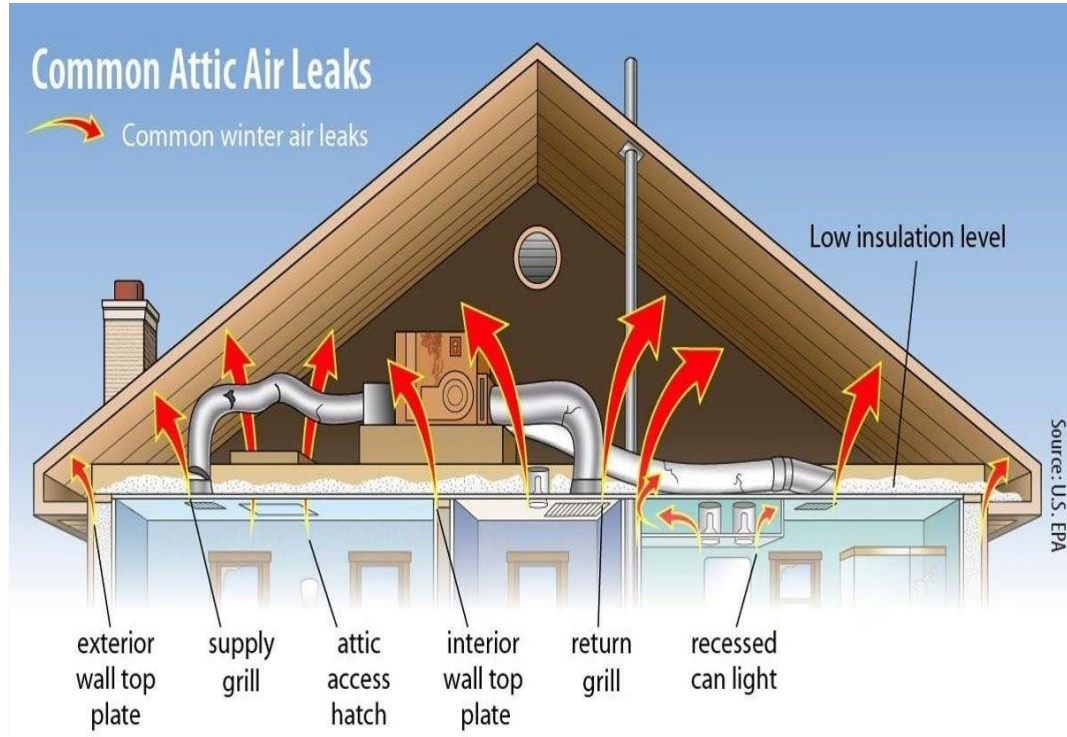
- Reduced energy bills
- Cooler in summer,  
warmer in winter
- Quieter home







# WHY AIR LEAKAGE HAPPENS





# NYSERDA PROGRAMS

## Income-Based Programs



- Free home energy assessments
- **Comfort Home:** available for all income levels. \$1,000 - \$4,000 for insulation, air sealing, and energy efficiency work
- **EmPower+:** Up to \$10,000 depending on income level and household size. Includes insulation, air sealing, upgrading appliances to energy-efficient options (i.e. refrigerators)





# WESTCHESTER HOME REPAIR GRANTS

## AGING IN PLACE HOME REPAIR GRANT

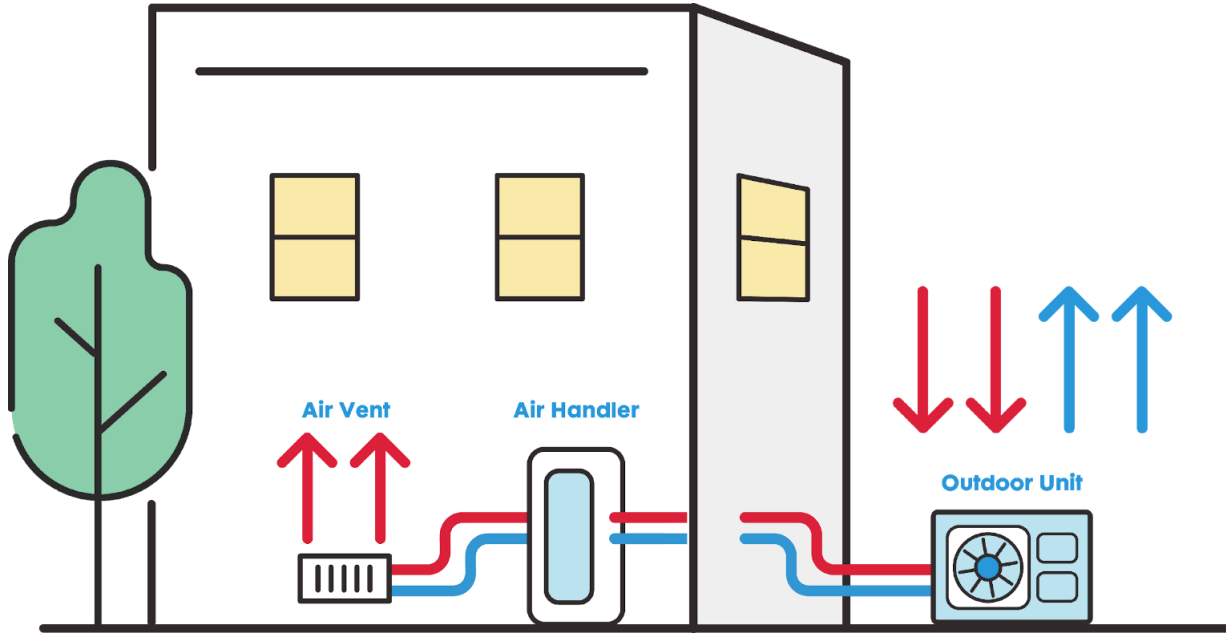
- Westchester Residential Opportunities, Inc. and Habitat for Humanity
- Installing ramps and handrails, energy-efficiency upgrades, insulation and windows
- <https://habitatnycwc.org/aging-in-place/>

## WEATHERIZATION REFERRAL ASSISTANCE PROGRAM

- Westchester County Department of Senior Programs and Services
- Up to \$5,000 per household for insulation, air sealing, door or window upgrades



# AIR SOURCE HEAT PUMPS



## BENEFITS

- Provides **heating and cooling**
- ASHP pumps are **2-3 times more efficient** than most current fossil fuel heating systems
- **Two types** of applications

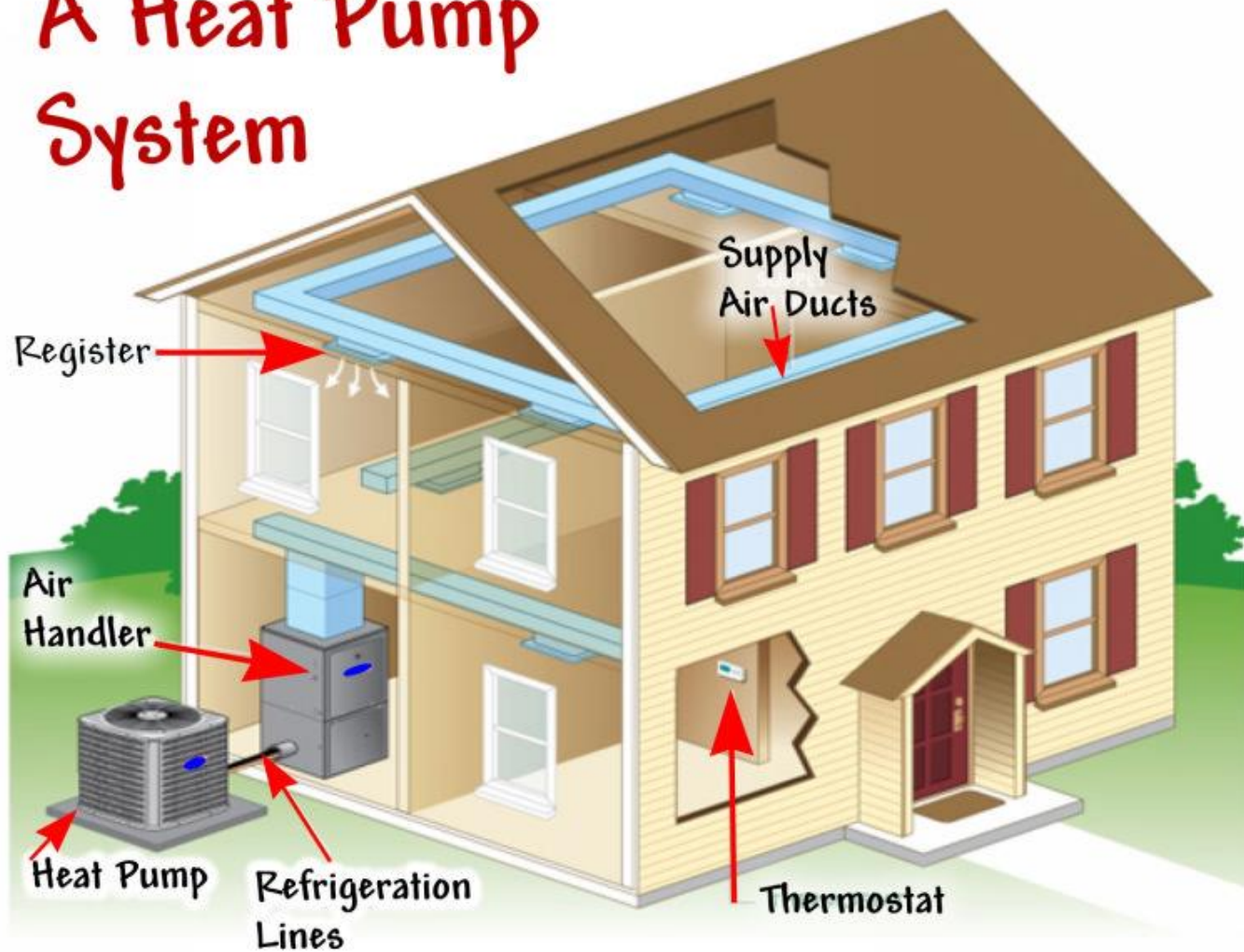
**The Indoor Air Handler**

**Refrigerant Lines**

**The Outdoor Unit**



# A Heat Pump System





# AIR SOURCE HEAT PUMP

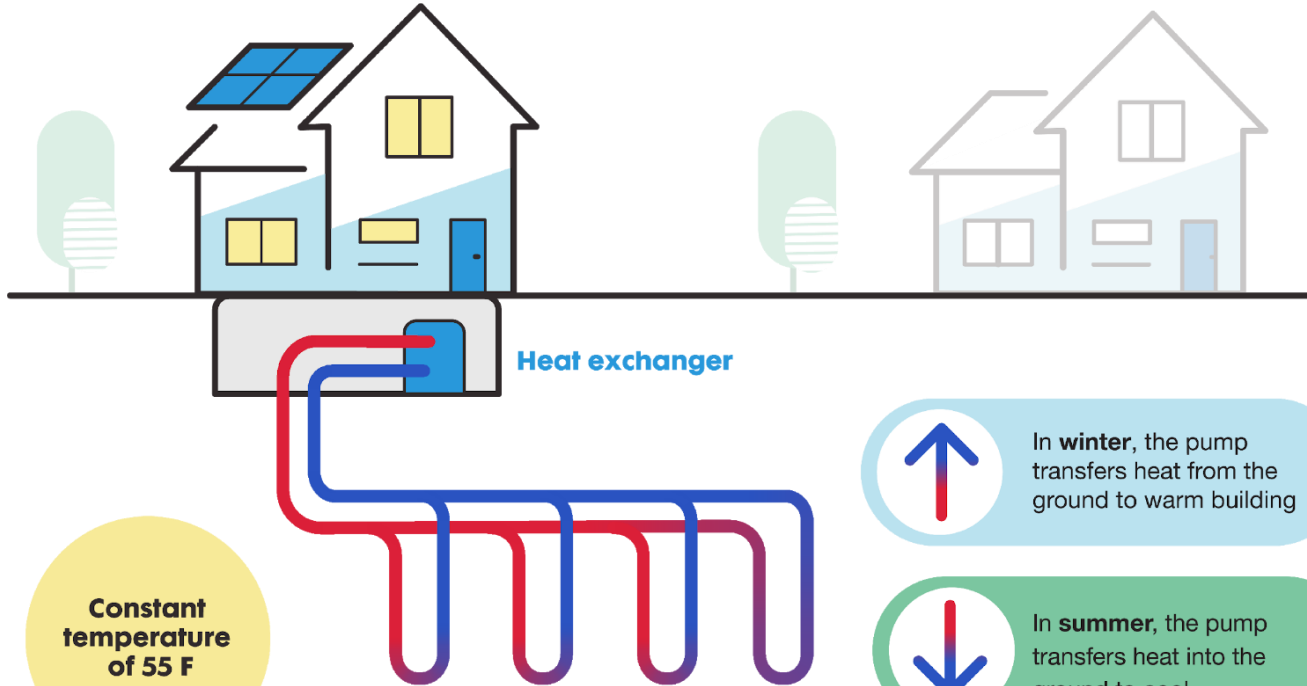
- Utility Rebates and incentives
  - **Con Edison:** rebate of 50% up to \$8,000 for decommissioning or a rebate of 50% up to \$2,500 for integrated controls
  - **NYSEG** offers \$500- \$1,000 per 10,000 Btu/h



Simon, Jean and John , *Rivertowns House Tour*



# GROUND SOURCE HEAT PUMP



## BENEFITS

- Provides **heating and cooling**
- GSHP pumps are **3-4 times more efficient** than most current fossil fuel heating systems



# GROUND SOURCE HEAT PUMP

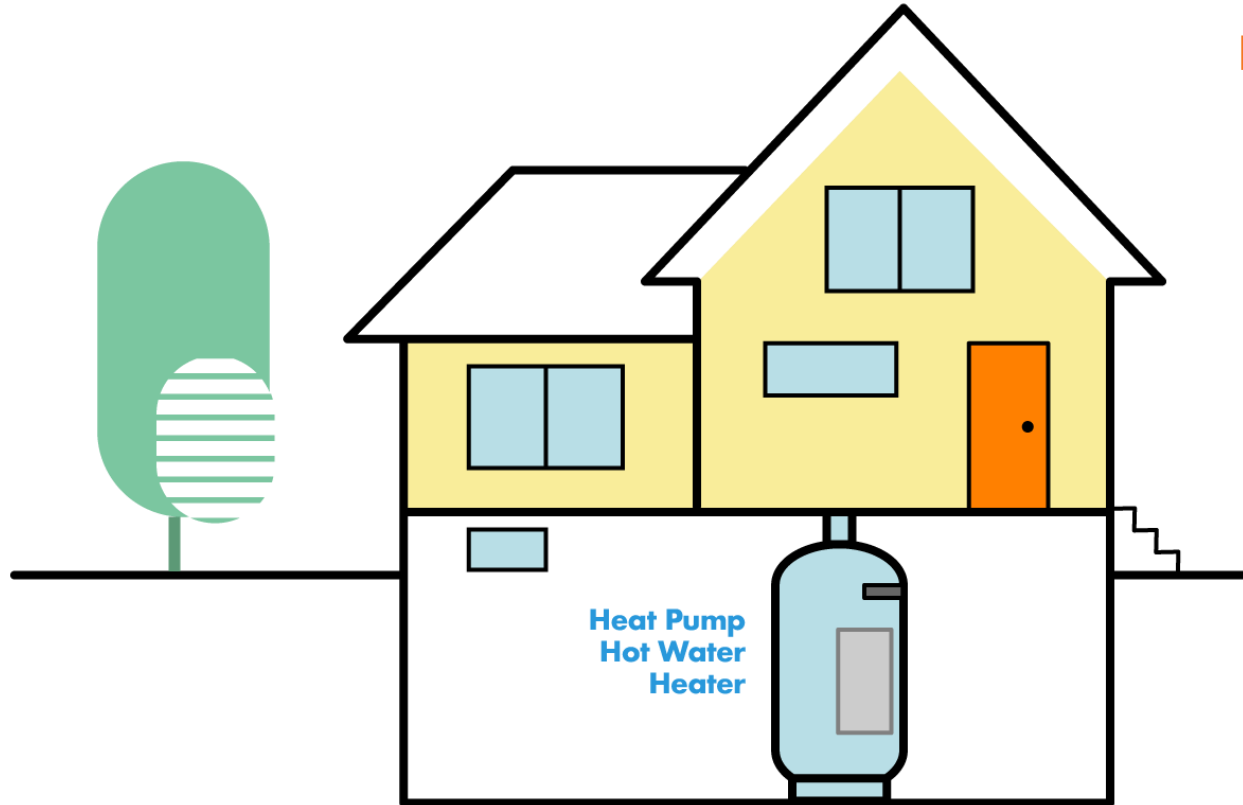
- Utility Rebates and incentives
  - **ConEd** Offers a rebate of 50% up to \$20,000
  - **NYSEG** offers \$1,500 per 10,000 Btu/h
- New York State Tax Credit of 25%, up to \$5,000
- Federal tax credit: 30% of costs (no limit!)



Jen N. Katonah



# HEAT PUMP HOT WATER HEATER



## BENEFITS

- Heat pump water heaters are **2-3 times more efficient** than most fossil fuel systems
- Bonus **dehumidification**



# HEAT PUMP HOT WATER HEATER

Typical adders: electrical work, condensate lines, extra piping and valve work

## Utility Rebates

- **ConEd** offers \$1,000 per unit
- **NYSEG** offers \$700 per unit





# FEDERAL TAX CREDITS (IRA)

## Weatherization

	Type	2022 Credit	2023 Credit
<b>Weatherization / Energy Efficiency Upgrades (25c)</b>  <i>For 2022: lifetime maximum credit of \$500 for all upgrades</i>  <i>For 2023: total amount claimed is capped at \$1,200 annually</i>	Insulation Materials	10% of material cost	30% of cost
	Exterior Doors		30% of cost up to \$500 (\$250 per door)
	Windows + Skylights	10% of material cost up to \$200	30% of cost up to \$600
	Home Energy Audits		30% of cost up to \$150
	Electric panel or circuit upgrades		30% of cost up to \$600  <i>NOTE: Must be done alongside other energy efficiency improvements or heat pump install</i>



# FEDERAL TAX CREDITS (IRA)

## Heat Pumps, Water Heaters, and Solar

	Type	2022 Credit	2023 Credit <input type="checkbox"/>
Heat Pumps (25c)  <i>For 2023: total amount claimed is capped at \$2,000 annually</i>	Air Source Heat Pumps	\$300 max	30% of cost
	Heat Pump Hot Water Heater	\$300 max	30% of cost
Residential Clean Energy Credit (25d)	Geothermal Heat Pumps	30% of costs (no maximum amount!)	
	Solar		

**NOTE:** \$2,000 cap annually (if purchased alone OR alongside heat pump hot water heater)

# RESOURCES

## CONTACT US FOR:

- Homeowner support via phone and email
- Funding + Application Assistance
- Incentive + Rebate Guides
- Contractor List
- Testimonials and Case Studies



Active Savings with a Passive House!

PASSIVE HOUSE WITH AIR SOURCE HEAT PUMP



# GridRewards™

# Demand Response

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With Sustainable Westchester's GridRewards™ you earn real money for smart energy behavior. It's as easy as a flip of a switch.



**Unplug.** Take simple energy actions during peak demand times. We'll tell you when and how to save electricity.



**Earn Cash.** Get paid real money at the end of the year.



**Save the planet.** ConEd pays you to reduce usage at the most important times to avoid running inefficient, fossil fuel power plants.

Learn more: [sustainablewestchester.org/gridrewards](https://sustainablewestchester.org/gridrewards)



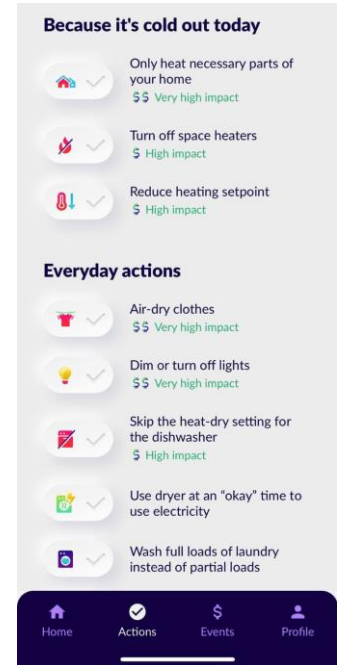
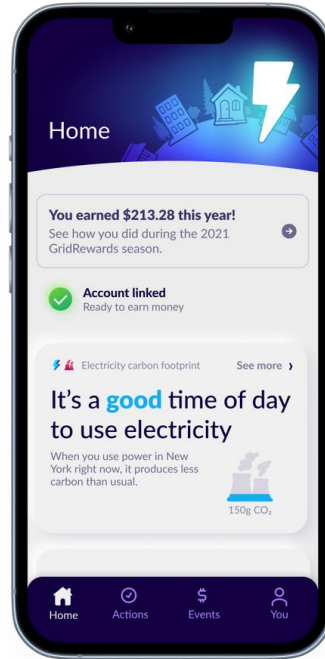
scan here  
to download



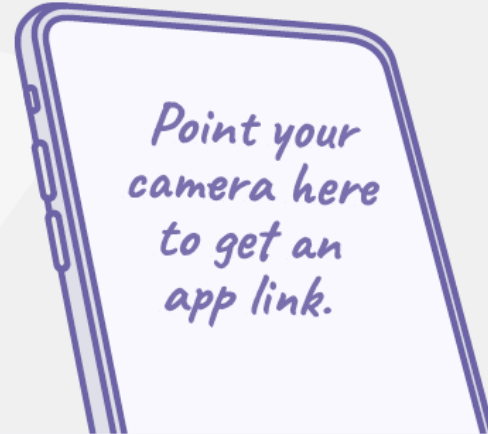


# PERSONALIZED ENERGY INSIGHTS

- Personalized usage
- View the real time carbon intensity of the electricity grid
- Track your actions and impact
- View your projected billing
- Learn from energy saving tips



If you don't have the app, you can download GridRewards here



Participants go to the app on [Google Play](#) or [App Store](#) & download!



# Contact Information

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## **EnergySmart Homes**

- **Sign up:** <https://sustainablewestchester.org/energysmarthomes/sign-up/>
- **Email:** [energysmarthomes@sustainablewestchester.org](mailto:energysmarthomes@sustainablewestchester.org)
- **Phone:** 914-242-4725 ext.122



# SOLUTIONS FOR HEALTHY, VIBRANT, SUSTAINABLE COMMUNITIES