



“2 STEPS TO SAVINGS, HEALTH & SAFETY” SPRING 2021

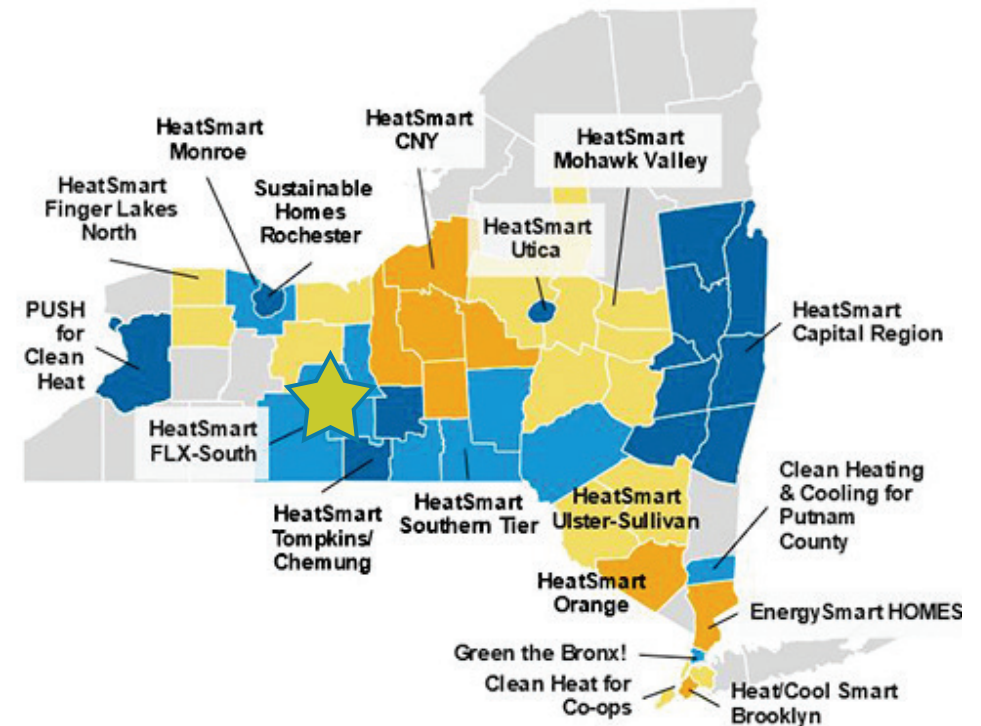
HeatSmart FLX South
STEPS IPE and E&E Committee Presentation



HeatSmart FLX South

- We are a **community-based** heat pump campaign
- Serving Schuyler, Seneca, Steuben, & Yates
- We are here to empower and enable you to adopt heat pumps for heating and cooling.
- **Why?** To decrease heating & cooling costs, increase comfort, health & safety, and decrease fossil fuel use to lower our footprint.
- 22 HeatSmart campaigns in New York State
- Supported by NYSERDA and Cornell Cooperative Extensions in the 4 – county area - serving New York State and your communities for over 100 years!, and local legislatures.

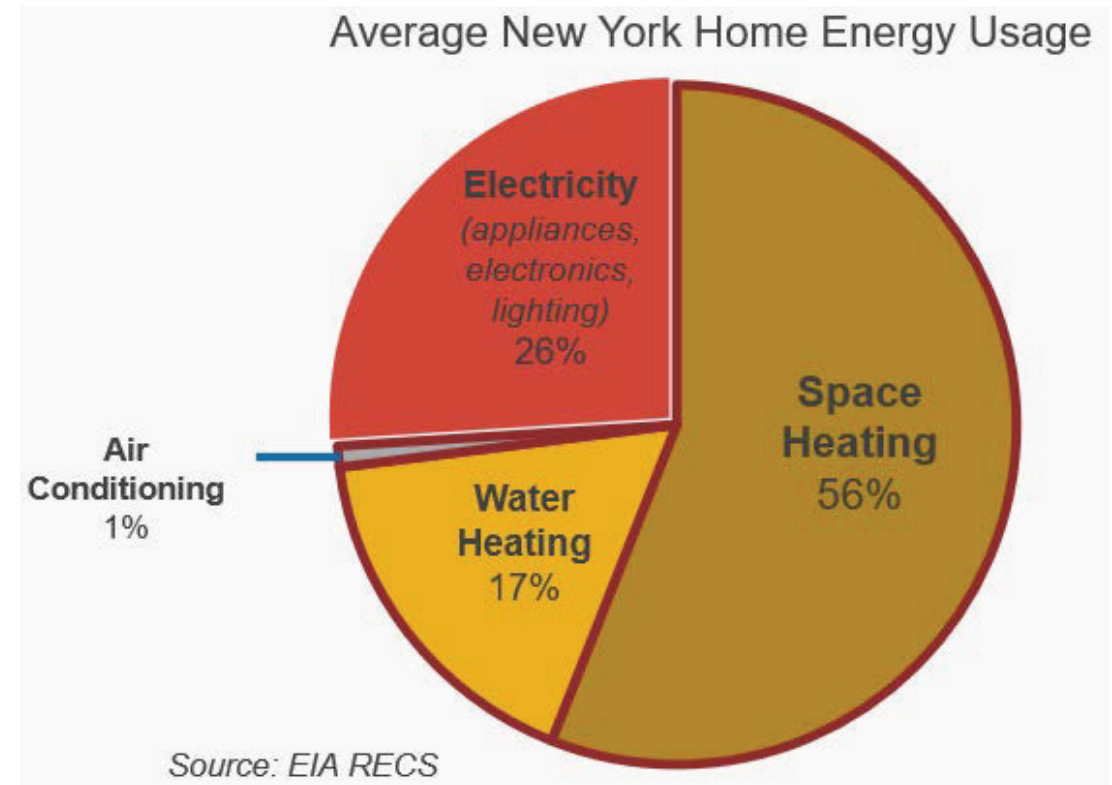
Based out of Cornell Cooperative Extension of Schuyler.



Average Home Energy Use

The Bigger Picture

- Almost 75% of energy used in a typical New York home is for heating and cooling!
- The average New York household pays \$2,500 per year in energy bills
- You could save hundreds of dollars a year on heating and cooling by adopting a heat pump, and increase health & safety



Who is this for?

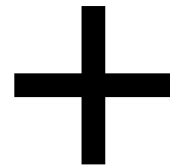
- Home-owners
- Renters
- Landlords
- Small commercial
- Non-profits



What is the path to heat pumps?

#1: Weatherize Space

#2: Install Heat Pump



Step #1: Weatherize → “Sweater Building Blocks”

A. Insulation



B. Air Sealing



Free Home Energy Audit

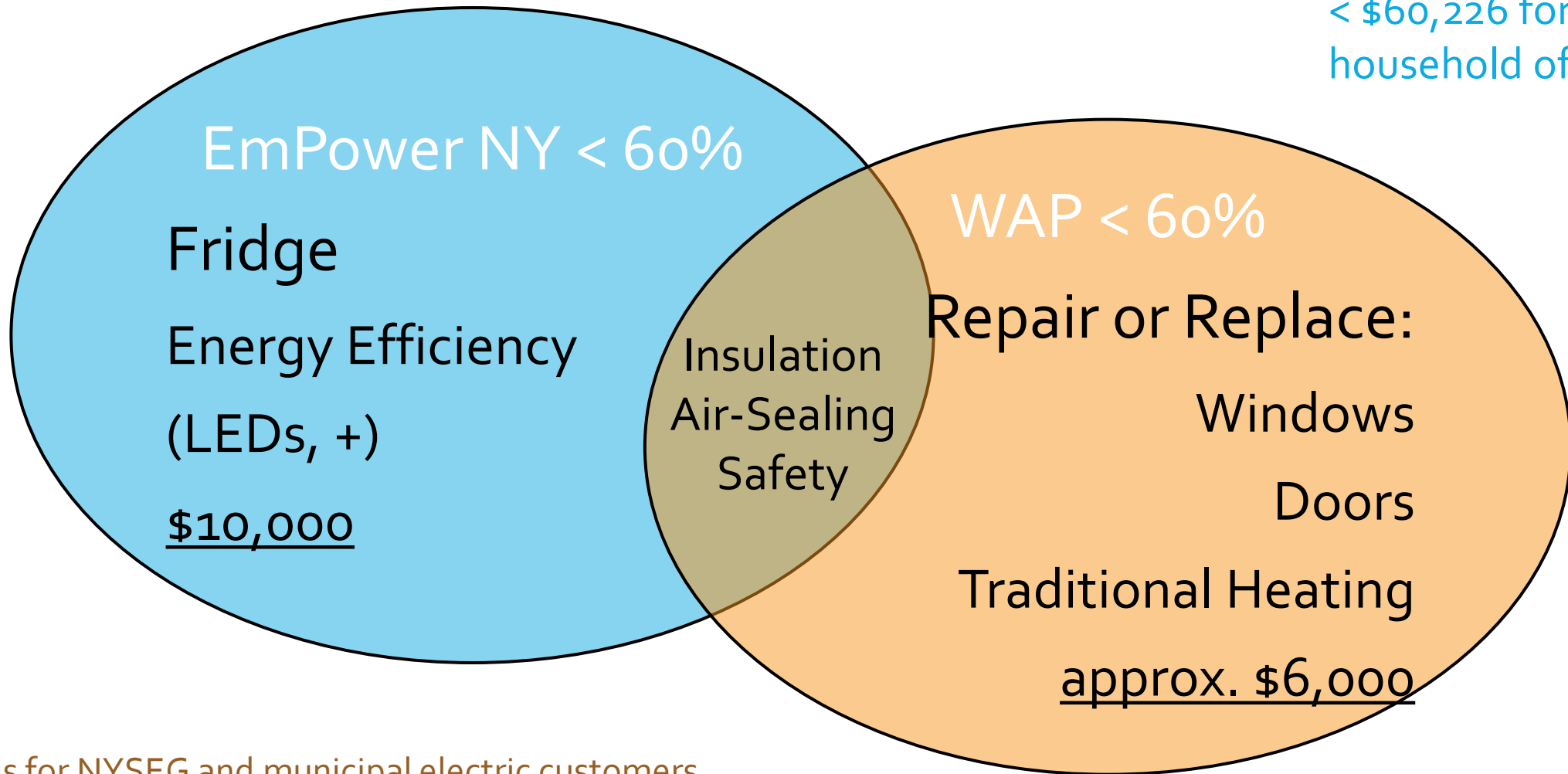


Certified Professionals Check:

- ✓ Air Leaks
- ✓ Insulation Levels
- ✓ Health & Safety
- ✓ Appliance Efficiency
- ✓ Heat Pump Opportunities

Low-Income Household Programs

HEAP eligible
Or
< \$60,226 for a
household of 4



WAP is for NYSEG and municipal electric customers

Moderate-Income Household Program

< \$120,452 for a household of 4

Assisted Home Performance

< 120%

Insulation

Air-Sealing

Heat Pump Water Heater

More!

50/50 Matching \$5,000

Comfort Home Program

> \$120,452 for a
household of 4

Comfort Home > 120%

Free Energy Audit!

Air Sealing & Insulation

Windows

Low-Interest Loan Options

\$1,000-\$4,000

Low-Cost Small Commercial and Non-Profit Energy Audit

Green Jobs Green New York Energy Study

Pre-Selected Contractor:

- ✓ Unbiased comprehensive study and report for lighting, HVAC, domestic hot water, building envelope (building blocks)
- ✓ No-cost clean heating and cooling screening for heat pump system
- ✓ Next pick vetted contractor

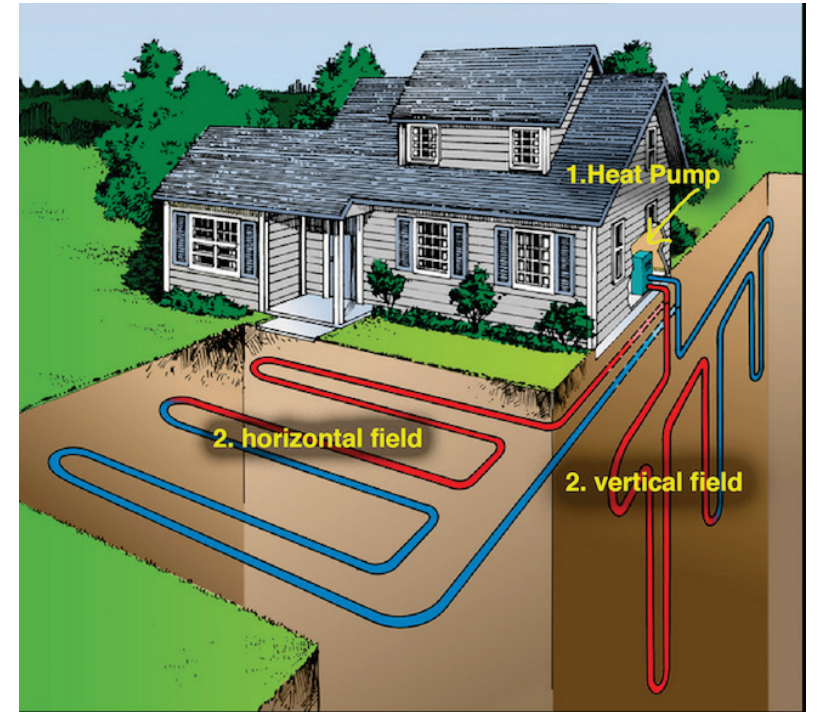
NYSEG and municipal electric customers



Step #2: Heating Solutions → Heat Pumps

Air Source (ASHP)

Ground Source (GSHP) or “Geothermal”



How does a heat pump work?

Your fridge is a heat pump



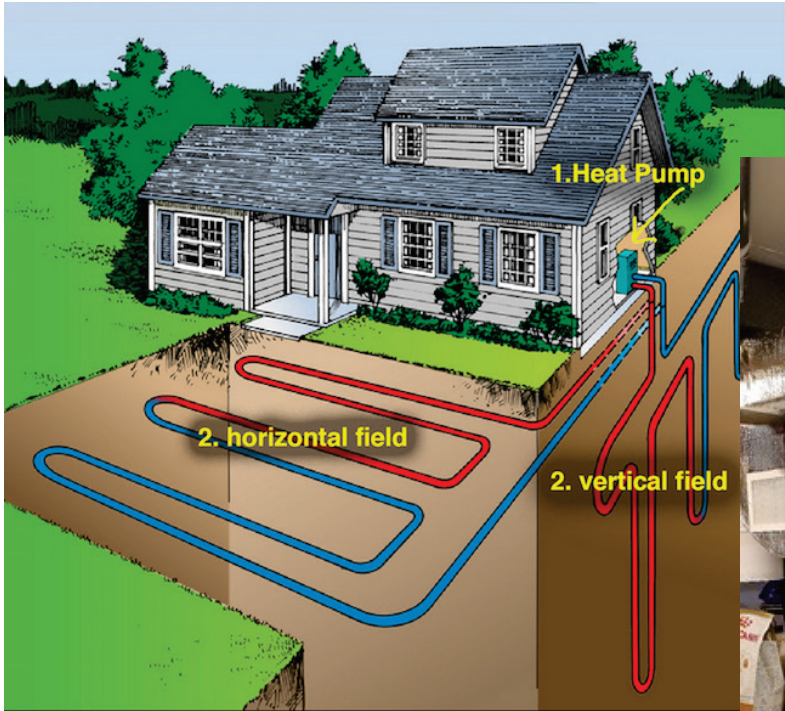
- Traditional heating creates heat vs. Heat pump uses existing heat
- Heat is around us in the air and ground all year (even in the winter)
- Heat pumps transfer heat into or out of a space
 - Move heat into a room to heat it
 - Move heat out of a room to cool it

Air Source Heat Pump (ASHP)



- 2 to 3 x more energy efficient than propane, fuel oil, or electric-resistance heating
- Retrofit existing ductwork or...
- Mini-split system floor or ground mount option
- About \$10,000 to \$15,000 plus before incentives
- Partial heating options

Ground Source Heat Pump (GSHP)



- 4 to 5 x more energy efficient than propane, fuel oil, or electric-resistance heating
- Ducted or...
- Water-based system
- Outside is trenched or bored hole
- Constant temperature underground
- \$22,000 to \$50,000 plus before incentives

Heat Pump Water Heater

- 2 to 3 x more energy efficient than standard or on-demand water heater
- Happiest living in your basement
- Taller than average water heater
- Provides dehumidification!
- Uses indoor air to provide hot water
- Electric resistance back-up for high demand



How are We Doing? – Let's Energize and get Funky with...



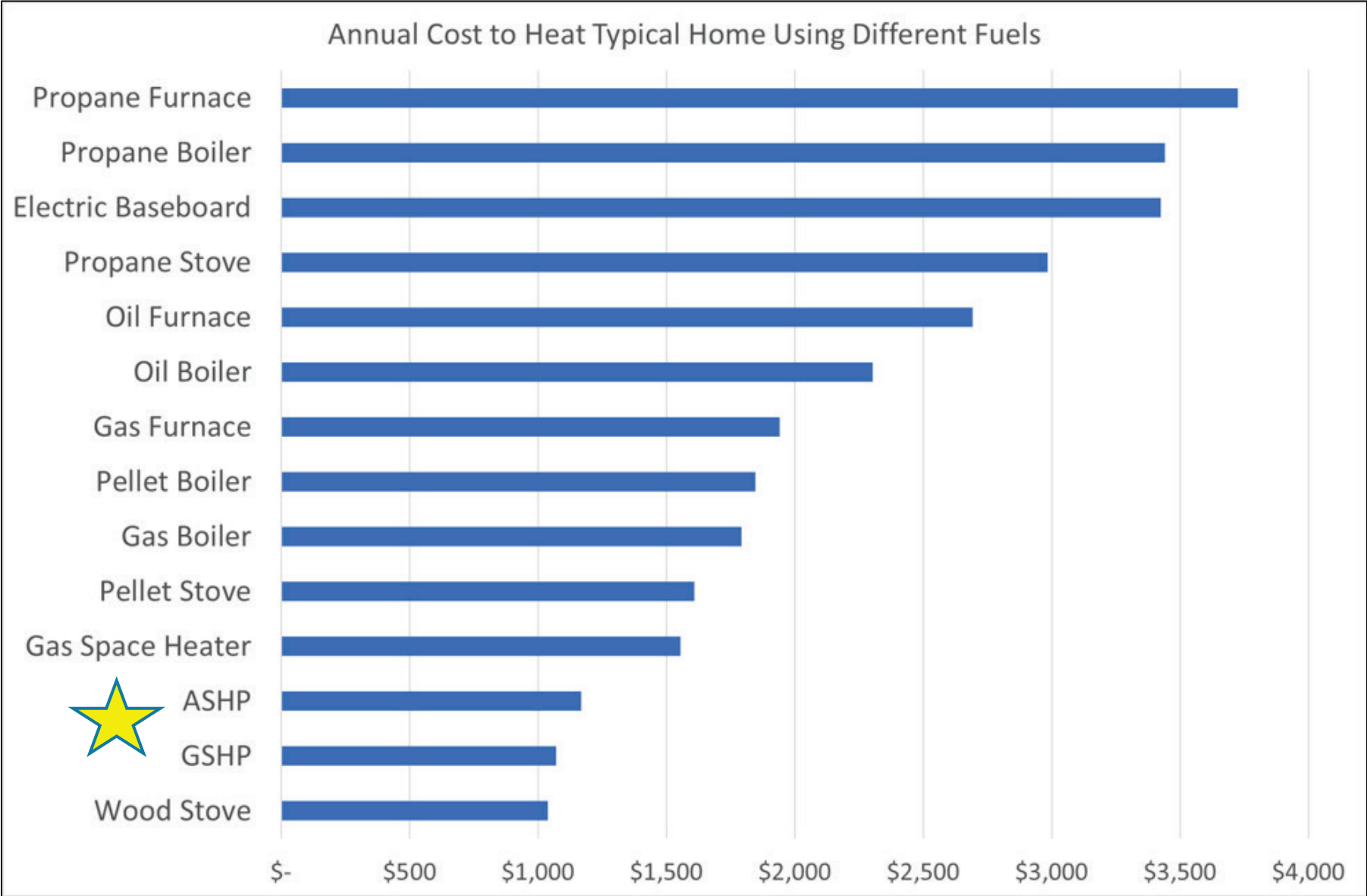
“Ask me why I’m pumped!”

Benefits

- Cost savings down to 1/3 cost propane, fuel oil, & electric-resistance
- Cold climate made
- Heat and cool
- Health & safety
- Lower carbon footprint
- Easy maintenance



Annual Heating Cost Comparison (Energy can save!)



Heat and Cool



Health

Improves Breathing Conditions

- Helps asthma and COPD
- No combustion to run heat pump
- Mini-splits dehumidify the space
- Mini-splits come with allergy cartridges and filters
- Ducted heat pumps have filters



Safety

Peace of Mind

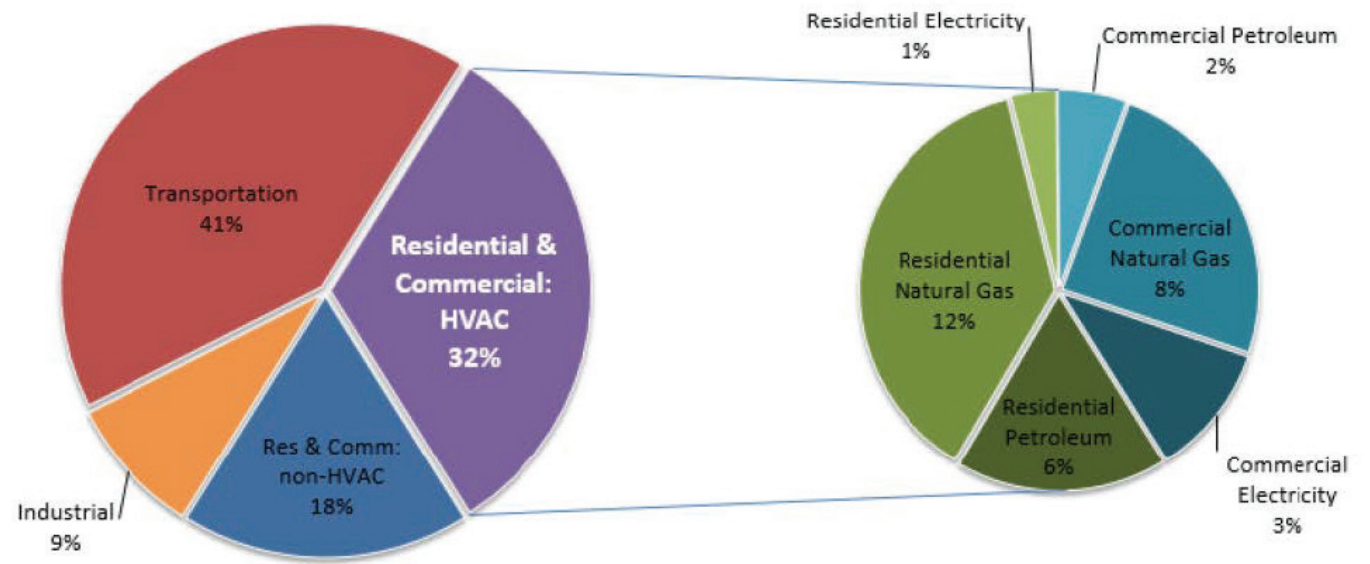
- No worry of gas leaks
- No worry of chimney fires
- No CO poisoning from gas oven heating
- No cords, no tripping hazards!
- Decrease sickness with a cozier home that is more affordable to heat



The Health of Our Home...Planet Earth

Estimated 2014 NYS GHG Emissions from Fuel Combustion & CLCPA

- About 32% of NYS greenhouse gas emissions are heating and cooling
- NYS Climate Leadership & Community Protection Act (CLCPA)
- ✓ Achieving NYS 80% reduction in greenhouse gas emissions by 2050 requires significantly reducing fossil fuel use



Total 2014 New York State GHG Emissions from Fuel Combustion: 181 MMtCO₂e

Ask yourself not...

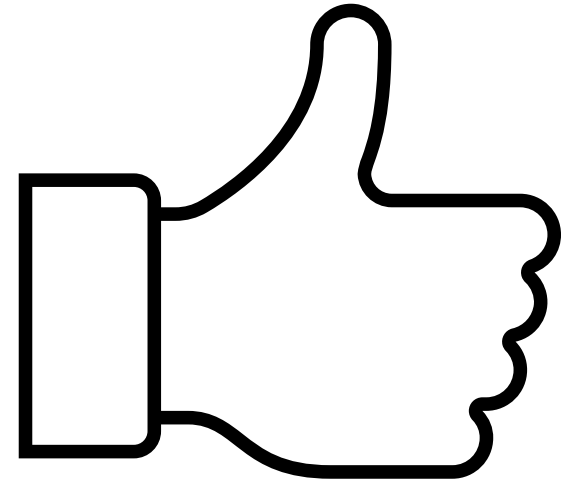
“Can I afford this?”

But...

“Can I continue to afford heating the way I do?”

What do we need from you today?

1. Know that we are here to help you reach your goals of a healthy and happy community and planet, while saving energy
2. Know that Heat Pumps are a viable means of heating and cooling your home or business
3. Know how to reach our team at HeatSmart FLX South – so we can help you today!
3. Support our work by engaging! Become a volunteer, tell a friend, join our network.



Thank You & Questions

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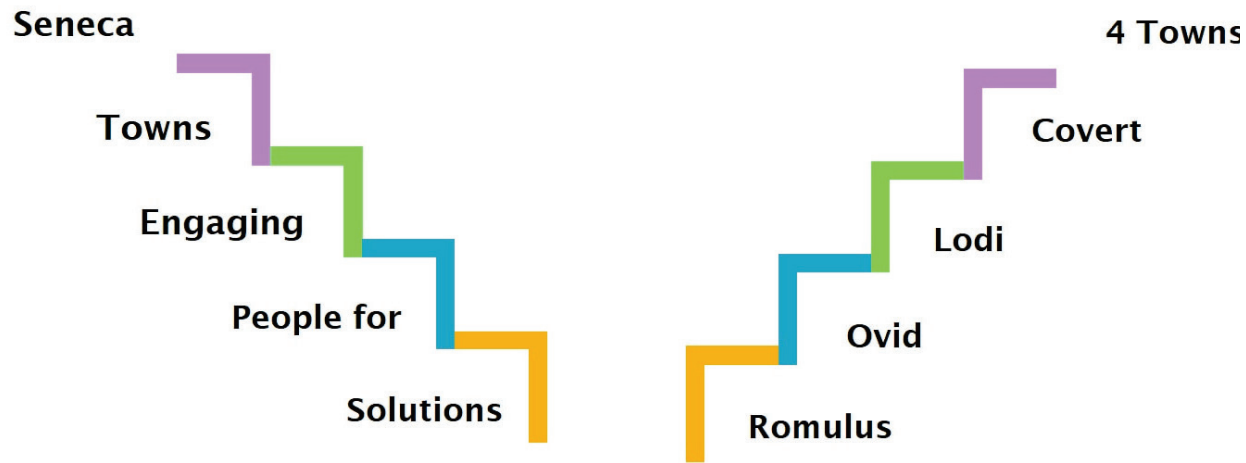
heatsmartflxsouth.org

Find us on FaceBook @FLXSouth



**Cornell
Cooperative
Extension**

Supplemental Information Slides



2021 Eligibility Based on Gross Annual Income

	< 60% State Median Income	< 120% Area Median Income	> 120% Area Median Income
Household Size	<i>EmPower/WAP, HEAP, etc.*</i>	<i>Assisted Home Performance**</i>	<i>Comfort Home Program</i>
1	\$31,318	\$62,636	No Income Limit
2	\$40,954	\$81,908	“
3	\$50,590	\$101,180	“
4	\$60,226	\$120,452	“
5	\$69,862	\$139,724	“
6	\$79,498	\$158,996	“
7	\$81,305	\$162,610	“
8	\$86,860	\$173,720	“
9	\$95,700	\$191,400	“
10	\$104,540	\$209,080	“

NYSEG Heat Pump Incentives Residential



A. Air Source

- \$1,000 per 10,000 BTUs (heating units)
- 25,000 to 60,000 BTUs demand
- Average incentive \$2,500 to \$6,000!
- Partial heating \$500 per outdoor condenser for mini-split version
- \$700 water heater (can self-install)

B. Ground Source

- \$1,500 per 10,000 BTUs (heating units)
- Same demand
- Average incentive \$3,750 to \$9,000!
- Plus 26% Federal Tax Credit with tax liability
- \$900 water heater

¹ BTU equals the energy released by a burning match approximately

Small Commercial Incentives Available



USDA Rural Energy for American Program (REAP)

- Eligible: rural small businesses & agricultural producers
- Competitive grants

NYSEG

- Lighting retrofit program
- Commercial & Industrial Rebate Program
- Custom heat pump incentive based on \$80 per MMBTU annual energy of savings

Lighting retrofit incentives for municipal electric customers

Financing

Residential

- NYSERDA low-interest loans
- Alternative Federal Credit Union Solar and Energy Efficiency Loans
- * Seneca & Schuyler residents
- Traditional banking



Small Business or Non-Profit

- NYSERDA loans, 0% interest until 5/31/21
- USDA REAP loan
- Credit unions
- Traditional banking