



**Adam Flint**, Director of Clean Energy Programs  
**Anna Purtell**, Sustainable Energy Coordinator

---

---

(607) 873-9220 | [nynest.org](http://nynest.org) | [info@nynest.org](mailto:info@nynest.org)





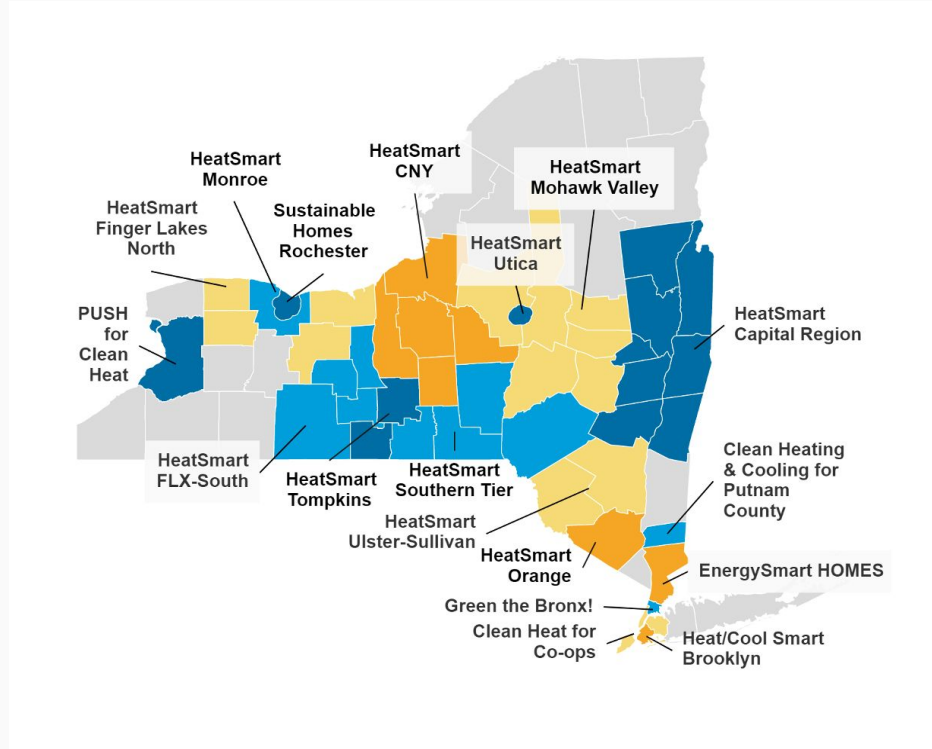
The Network for a Sustainable Tomorrow is a non-profit community-based network of programs working towards social, environmental, and economic justice and equity in our region. NEST catalyzes and convenes new initiatives and partnerships, and does outreach and education to build a stronger and more resilient Southern Tier.



# Overview

- **What is Heat Smart Southern Tier?**
- **Why HeatSmart?**
- **HeatSmart Technologies**
  - Weatherization and Home Energy Assessments
  - Heat Pump Technologies
- **Incentives & Financing**
- **Steps for Participating**
- **Q/A**

# What is HeatSmart Southern Tier?



- HeatSmart Southern Tier (HSST) is a NYSERDA-funded community outreach program that connects you to local heating and cooling and energy efficiency experts who offer the latest clean energy technologies
- We work to educate the public about sustainable heating and cooling systems through our workshops, webinars and tabling events

# Where Are We Now?

## Main Sources Of Greenhouse Gases in NYS



TRANSPORTATION

36%



BUILDINGS

30%



ELECTRICITY  
GENERATION

15%



WASTE

7%



REFRIGERANTS

5%



AGRICULTURE

4%

# Benefits of HeatSmart Southern Tier

- Reduce energy costs
- Home comfort & safety
- Reduce greenhouse gas emissions
- Community awareness
- In our collaboration with the Endicott **Clean Energy Communities** program, the village can receive points toward monetary awards and other benefits



# Clean Energy Communities (CEC)

- The Clean Energy Communities program is run by NYSERDA that provides municipalities with the opportunity to be more sustainable in exchange for awards
- Communities make energy efficiency and 'green' improvements to earn points. Once a community has earned a certain number of points, they receive an award

# Endicott CEC

- Endicott is a participating Clean Energy Community and you can help support the Village's sustainability goals!
- As residents sign up for our HeatSmart program, Endicott gets closer to reaching their clean energy goals and receiving grant money from NYS
- Getting just five residents to sign contracts for energy efficiency improvements and heat pump installations benefits CEC campaigns, such as Endicott's



# HeatSmart Southern Tier Program Covers:



- Weatherization
- Heat Pumps
  - Ground Source
  - Air Source
  - Water Heater

# HeatSmart Southern Tier's Competitively Selected Partners

Air Source Heat Pumps



Ground Source Heat Pumps

Dailey Geothermal



Home Performance and Efficiency



(Delaware County)



(Delaware County)

Pending New  
Partnership

(Delaware County)



First Step: **Weatherization**

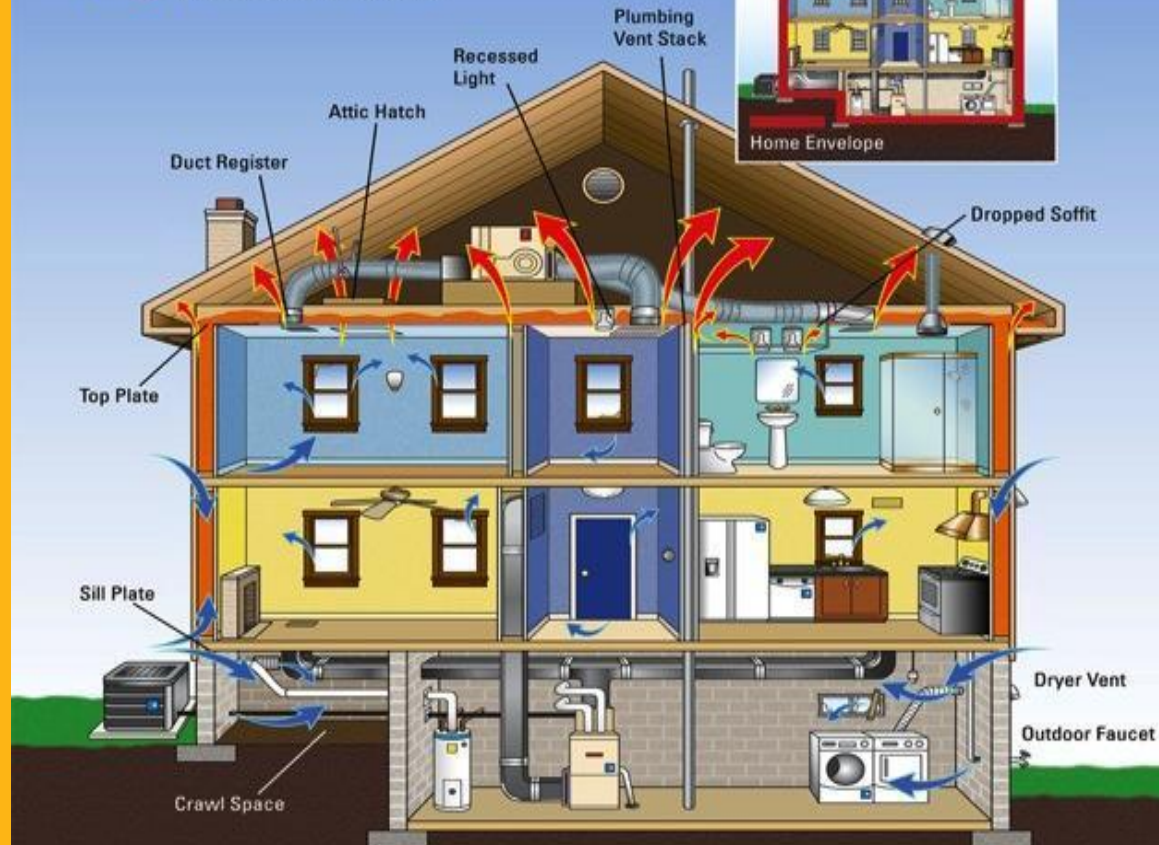
# Weatherization Benefits

- Reduce energy consumption and costs
- Increase home safety
- Improve home comfort
  - Reduce drafts
  - Improve humidity control
  - Improve indoor air quality
  - Reduce risk of ice dams



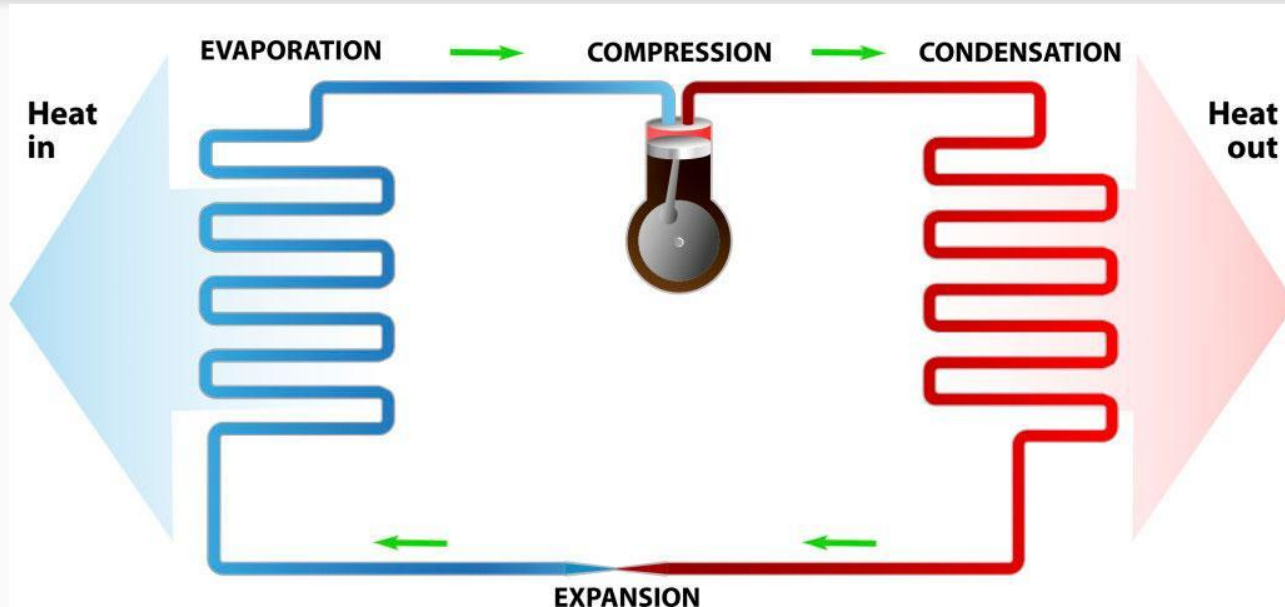
## COMMON AIR LEAKS

-  Air Leaking into the house
-  Air Leaking out of the house



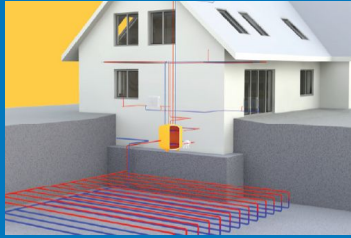
# Heat Pump Technologies

# What is a Heat Pump?



# Types of Heat Pumps

## Space Heating & Cooling



Ground Source  
Heat Pump



Air Source  
Heat Pump

## Hot Water Heating

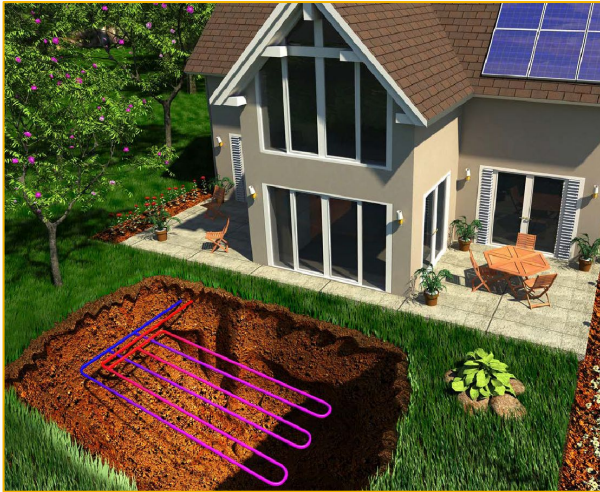


Heat Pump  
Water Heater

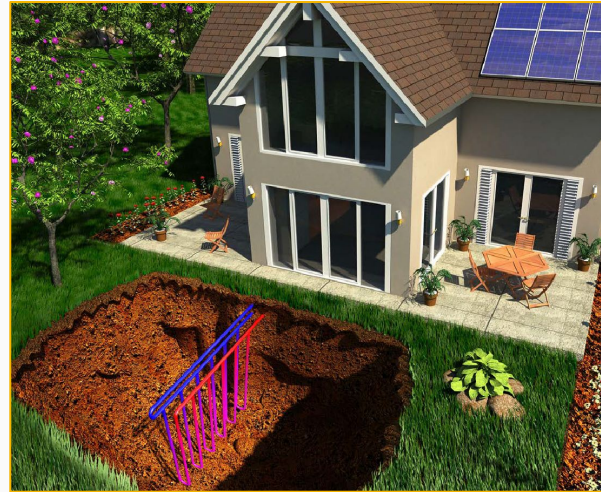


# Types of Ground Source Heat Pumps

## Closed Loop



Horizontal



Vertical

# Ground Source Heat Pump Benefits

- An efficient heating/cooling system
- Long system lifetime
- Eliminate fossil fuels from your home
- Can include domestic hot water



# Air Source Heat Pumps

## Ductless Heat Pumps

### Outdoor Units



### Indoor Units



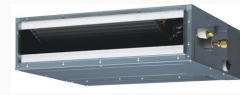
Wall Mount



Ceiling Cassette



Floor Mount



Mini Duct

# Air Source Heat Pumps Benefits

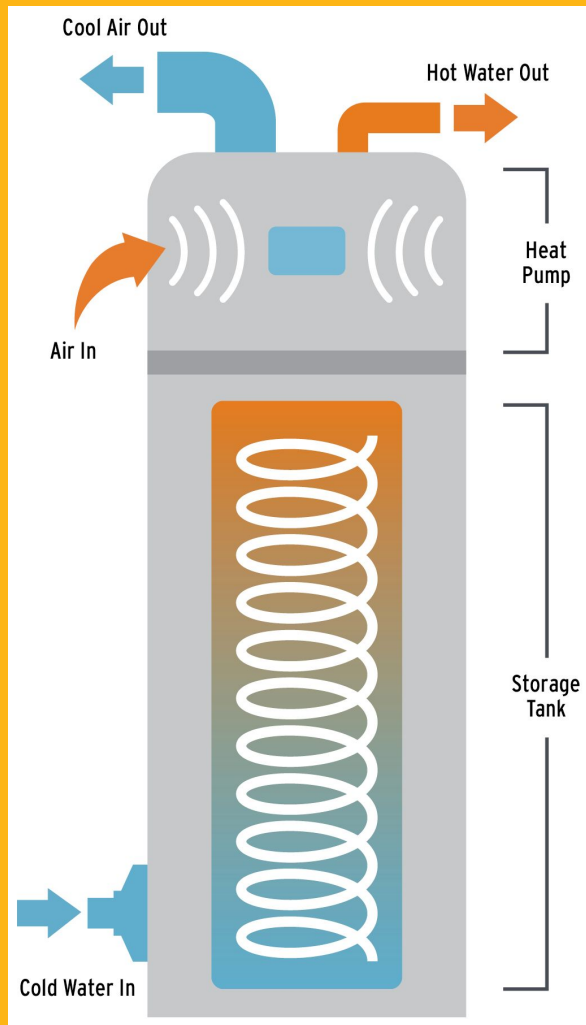
- Energy savings
- Full heating replacement not required
- Flexible
- Zone control
- Air conditioning without ductwork
- Quiet

# Heat Pump Water Heaters

- Uses indoor air to heat your hot water
- Has backup for meeting high demand

## Benefits

- More efficient than typical electric water heaters
- Provides dehumidification



# Incentives & Financing

## NYSEG & RGE Incentives (Residential)

Technology	Description		Eligibility Requirements
<b>Cold Climate Air Source Heat Pump</b>	Partial Load Heating Rebate	<b>\$500</b> per outdoor unit <i>(-\$100 per outdoor unit to contractor)</i>	All ASHPs must be NEEP-listed Cold Climate Air Source Heat Pumps
	Full Load Heating Rebate	<b>\$1,000</b> per 10,000 Btu/h of maximum capacity at 5°F <i>(-\$500 per project to contractor)</i>	Partial Load: Must be mini-split heat pump Full Load: Can be central or mini-split heat pump, must be sized to 90-120% of building heat load
<b>Ground Source Heat Pump</b>	Full Load Heating Rebate	<b>\$1,500</b> per 10,000 Btu/h of heating capacity (certified by AHRI) <i>(-\$500 per project to contractor)</i>	GSHP must be ENERGY STAR certified and meet ENERGY STAR Tier 3 requirements and be sized to 90-120% of building heat load.  This incentive only covers closed-loop systems. Speak with your installer for more information about incentives for open-loop systems.
<b>Water Heating</b>	Heat Pump Water Heater	<b>\$700</b> per unit	Must be ENERGY STAR certified and under 120 gallons in capacity
	GSHP Desuperheater	<b>\$100</b> per unit	Desuperheaters are installed as an optional component to eligible GSHP systems to offset some of your hot water load. Speak with your installer to learn more about desuperheater integration.
	Ground-Source Water Heater	<b>\$900</b> per unit	This incentive is for ground source heat pump systems dedicated to providing 100% of domestic hot water load. The GSHP must be ENERGY STAR Tier 3 Certified.

**\*\*Custom incentives and incentives for commercial-scale systems are also available based on the expected annual energy savings (\$80/MMBtu). Speak with your installer to learn more.**

# Heat Pump Tax Credits

	Air Source Heat Pump	Ground Source Heat Pump	Heat Pump Water Heater
Federal Tax Credit	\$300**	30%	\$300
State Tax Credit	—	25%, up to \$5,000	—



# Financing

Provider	Loan Product Name	Description
NYSERDA*	Smart Energy Loan	Up to \$25,000; terms of 5, 10, and 15 years; 3.49 <u>or</u> 6.99% interest
	On-Bill Recovery Loan	Up to \$25,000; terms of 5, 10, and 15 years; 3.49 <u>or</u> 6.99% interest; paid on utility bill
	Companion Loan	Up to \$25,000; terms of 5, 10, and 15 years; 6.99% interest additional to OBR or SEL for larger work scopes. Cost effectiveness & other requirements apply. *
ASHP/GSHP Manufacturer Financing (E.g. Synchrony, EnerBank)		Unsecured loans with dealer fees (can be terms of up to 20 years)
Local Banks (e.g. Home Equity, consumer loans)		Dependent on bank

# Enabling LMI Participation: Income-eligible programs

## Assisted Home Performance with Energy Star Energy Efficiency/Weatherization

Provides those who apply with a discount of  
**50% of project costs**

- Limit of **\$5,000** for single-family
- Limit of **\$10,000** for 2-4 unit multi-family
- Includes heat pumps

Household Size	Income Limit
1	\$43,664
2	\$57,104
3	\$70,554
4	\$83,984
5	\$97,408
6	\$110,848

(Income levels subject to change)

# Enabling LMI Participation: Income-eligible programs

EmPower NY

Energy Efficiency/Weatherization

- Available to homeowners that are under **60%** of state median income that pay utility bills
  - HEAP eligible = **up to \$20,000 off *full project costs***
  - non-HEAP = **up to \$10,000 off**
- Includes heat pumps

EmPower New York Income Eligibility Guidelines 2021-2022

Household Size	Maximum Gross Monthly Income	Maximum Gross Annual Income
1	\$2,729	\$32,748
2	\$3,569	\$42,828
3	\$4,409	\$52,908
4	\$5,249	\$62,988
5	\$6,088	\$73,056
6	\$6,928	\$83,136
7	\$7,086	\$85,032
8	\$7,243	\$86,916
9	\$7,975	\$95,700
10	\$8,712	\$104,540

The current income guidelines for EmPower New York are set at 60% of the state median income.

(Income levels subject to change)

# Municipal Customer NYS-Based Incentives

## Qualifying Measures Worksheet

INCOMPLETE INFORMATION WILL DELAY OR DISQUALIFY YOUR REBATE.

EQUIPMENT & REBATE LEVELS	HEATING BTU	MANUFACTURER	CONDENSER MODEL # (OUTSIDE UNIT)	INSIDE UNIT COIL MODEL #	HEAT PUMPS: AHRI # WATER HEATERS: UEF #	TOTAL INCENTIVE
<b>Cold Climate Central Heat Pumps</b> Must be on the NEEP ccASHP Product & Specification List						\$1,200/system
<b>Cold Climate Mini-Split Heat Pumps</b> Must be on the NEEP ccASHP Product & Specification List <input type="checkbox"/> Partial Heating Load* <input type="checkbox"/> Full Heating Load*						Partial: \$800/system Full: \$1,200/system
<b>Ground Source Heat Pumps (GSHP)</b> Must be ENERGY STAR® certified						\$2,000/unit
<b>GSHP Desuperheater</b>						\$100/unit
<b>GSHP Water Heater</b> Must be ENERGY STAR® certified UEF ≥ 2.3						\$750/unit
<b>Air Source Heat Pump Water Heater</b> Must be ENERGY STAR® certified UEF ≥ 2.3						\$750/unit
▶ <b>GRAND TOTAL:</b>						

\*Partial heating load <90% of the building's design heating load. Full heating load = 90%-120% of the building's design heating load.

- Municipal Electric customers have certain incentives
- Independent Energy Efficiency Program Heat Pump Rebates
  - [Access form here](https://tinyurl.com/ieepform) or at [tinyurl.com/ieepform](https://tinyurl.com/ieepform)
- EmPower eligible - OTDA Funding Available

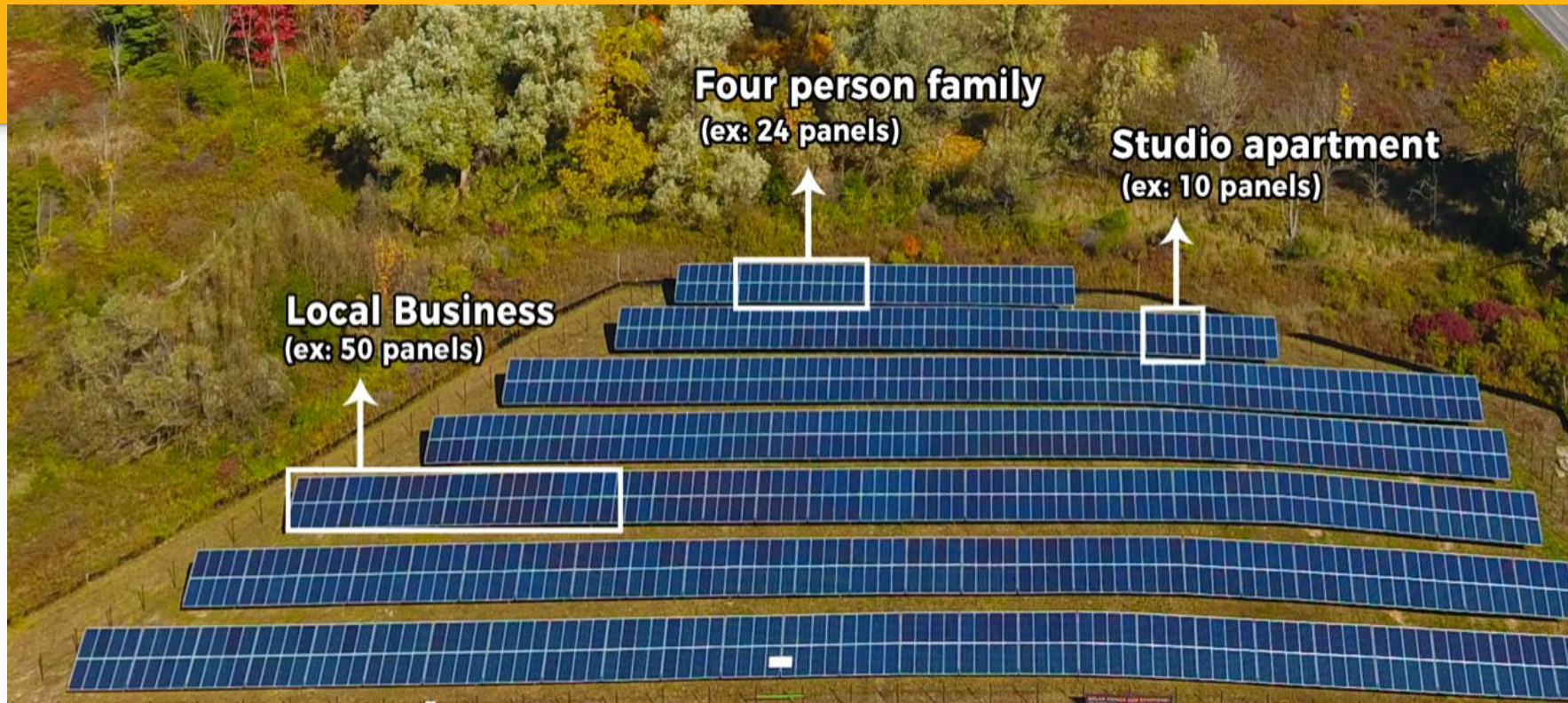
# Home Energy Audits

- Residential Energy Audit (REAP Audit)
  - Free for anyone, but does not include diagnostic testing
- Full Energy Audit including diagnostic testing
  - Market rate: Must pay fee
  - LMI: Must fill out joint application & have project done in order to be free
  - Diagnostic testing such as IR cameras

# Steps for Participating

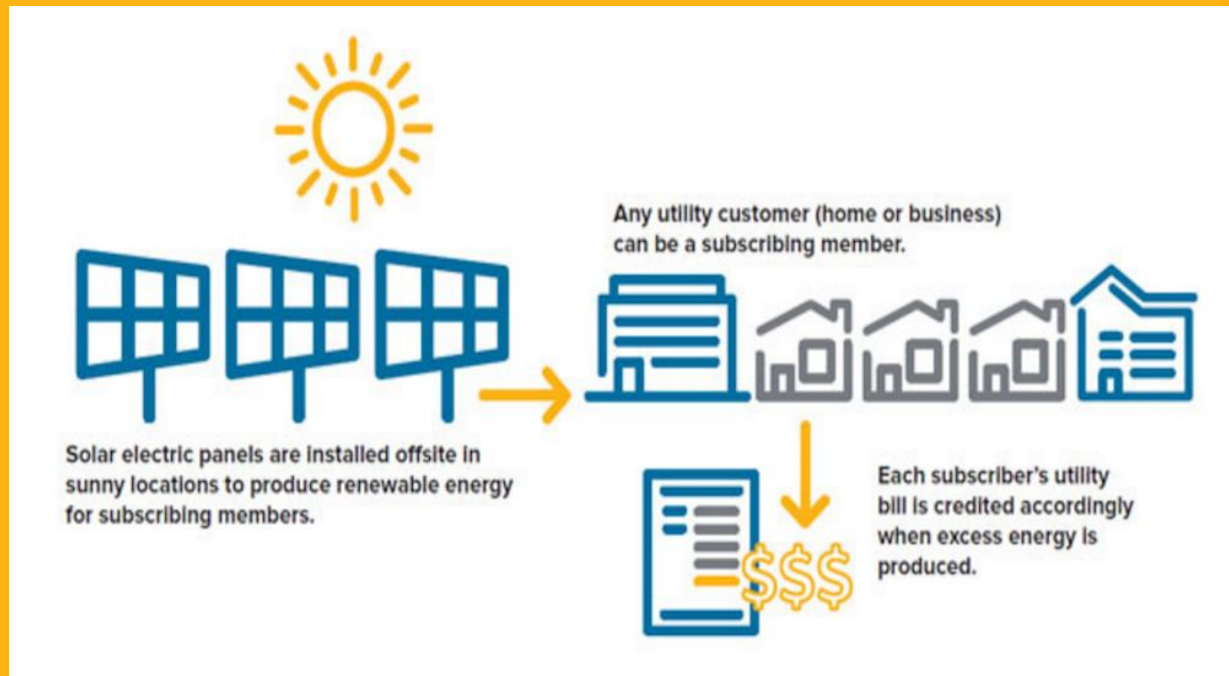
1. Sign up for a home energy assessment (and/or)
2. Sign up for site assessment from HSST installer(s)
3. Receive a quote for energy improvements
4. Apply for incentives/financing (if applicable)
5. Sign contract for desired systems (if any)
6. Complete installation work

# Dickinson Project: LMI Community Shared Solar





# Benefits and How It Works



- Receive 20% savings annually on your NYSEG bill.
- Support locally produced renewable electricity & union jobs
- Pre-enroll today to get your place in the queue!
- Income qualification required
- Join with no upfront cost or fees



Questions?

# Thank You!



---

---

Follow us on Social Media:



Facebook: Network for a Sustainable Tomorrow



Instagram: @ny\_nest



Twitter: @ny\_nest

(607) 873-9220 | [nynest.org](http://nynest.org) | [info@nynest.org](mailto:info@nynest.org)