

2023 C&I Business Partner Event

March 7, 2023

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Empowering Connecticut to Make Smart Energy Choices



Eversource, CNG, SCG and UI, the Energy Efficiency Board, Connecticut Green Bank, and the State have united on a shared mission - to provide Connecticut residents and businesses the resources they need to **save money and use clean energy**.

The Energize Connecticut initiative empowers our communities to make smart energy choices, now and in the future.



We look forward to hearing from you

Please put all your questions into the questions section with this icon.



Q&A



Agenda

1

Welcome, Keynote, Results and Heat Pumps

9:00a-10:30a

2

Session Breakouts

10:30a-1:30p

3

Lunch

11:45a-12:00p

Session Break-Outs

1

Session 1 (10:30a- 11:00a)

Engineering and Inspection & Lighting & Controls

2

Session 2 (11:00a-11:45a)

Instant/Express Incentives & Small Business Energy Advantage

3

Session 3 (12:00p-12:30p)

Demand Response and Battery Storage & Multifamily

4

Session 4 (12:30 – 1:00p)

Financing & Business Energy and Sustainability

5

Session 5 (1:00p-1:30p)

New Construction & Electric Vehicle Charging



Katie Dykes

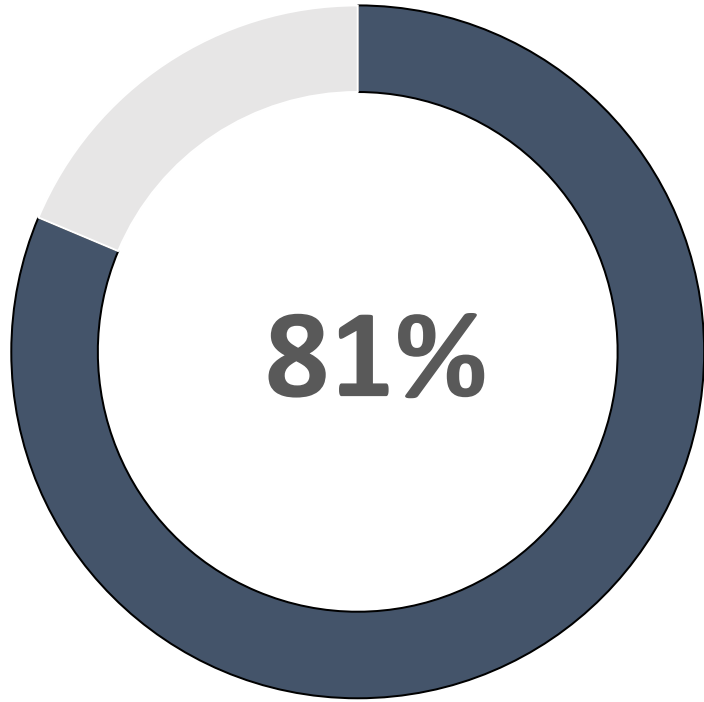
Keynote Speaker

Commissioner of Connecticut's Department of
Energy & Environmental Protection (DEEP)

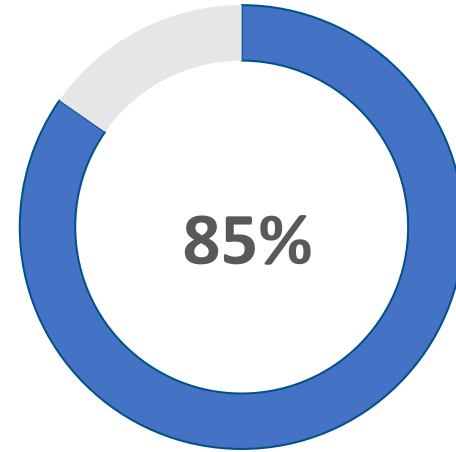
2022 Results



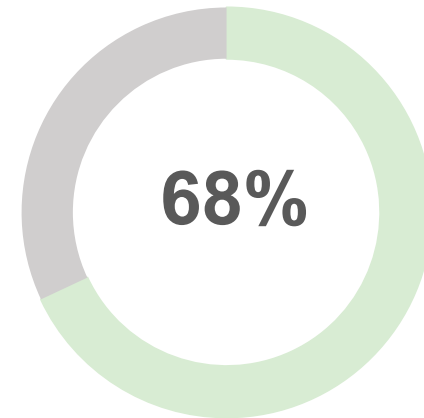
Statewide 2022 Spending



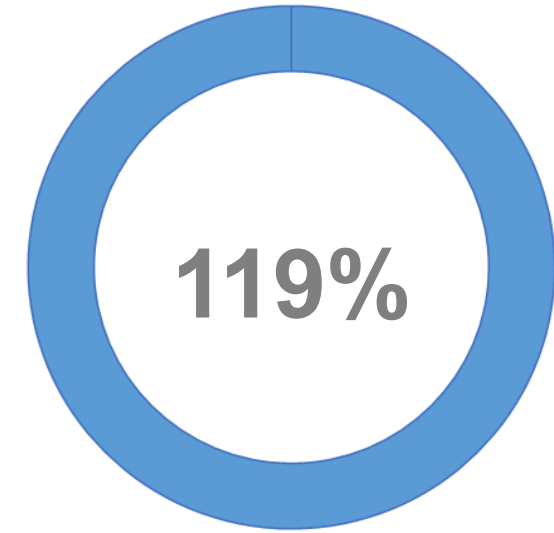
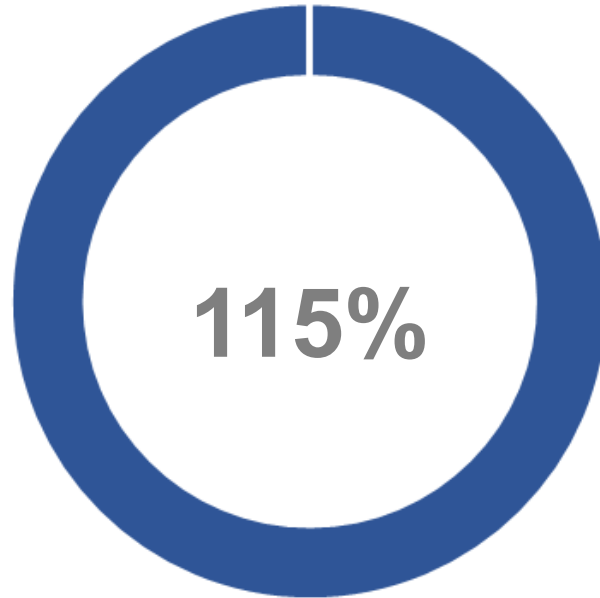
Eversource 2022



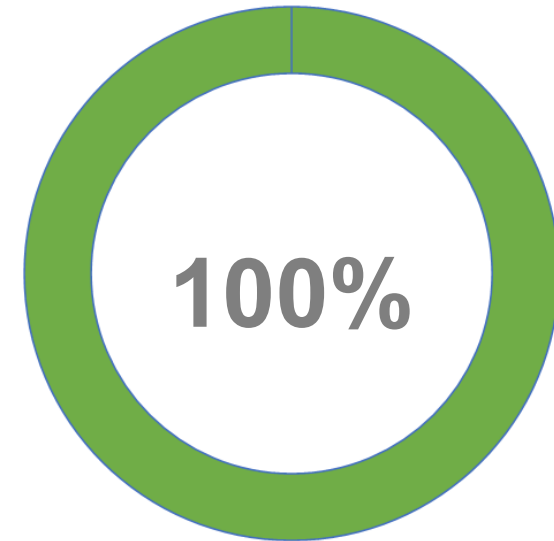
UI 2022



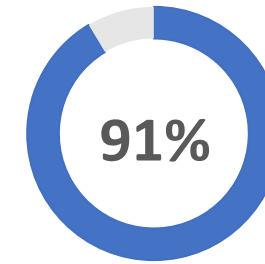
Statewide Electric 2022 Lifetime Savings



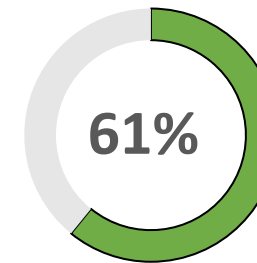
UI 2022 Lifetime Savings



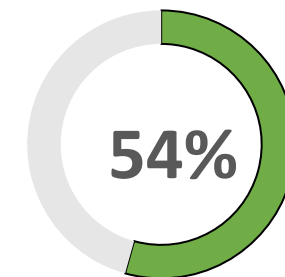
Eversource Gas 2022 Spending



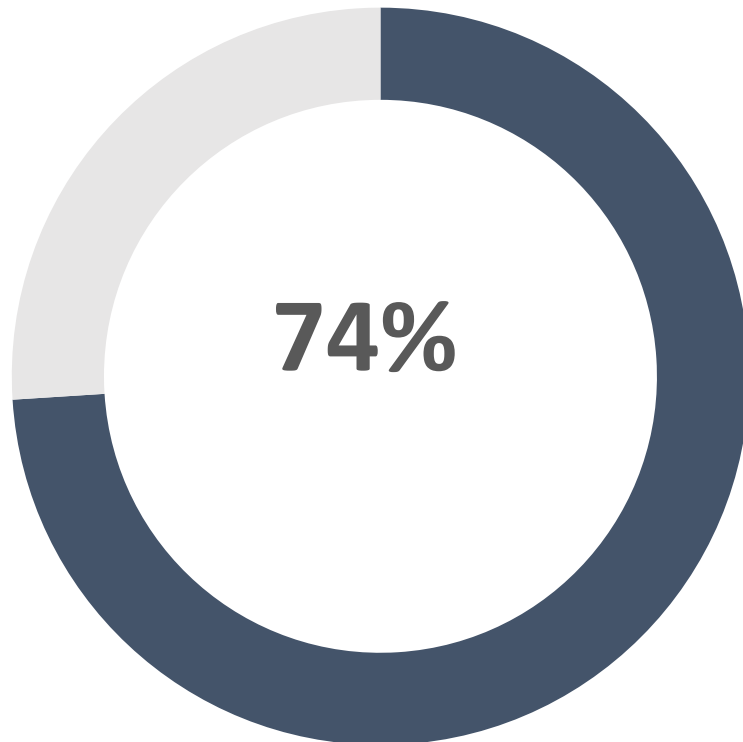
SCG 2022 Spending



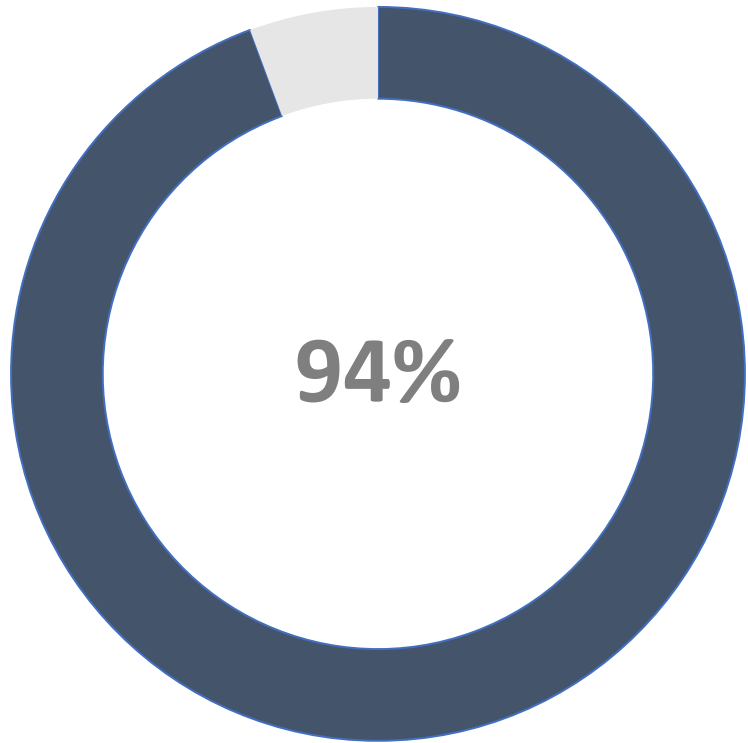
CNG 2022 Spending



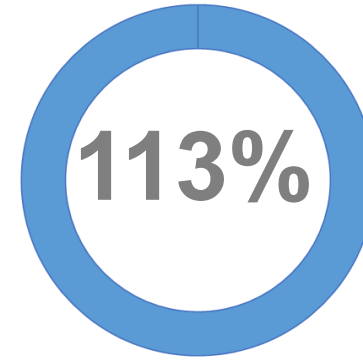
Statewide 2022 Spending



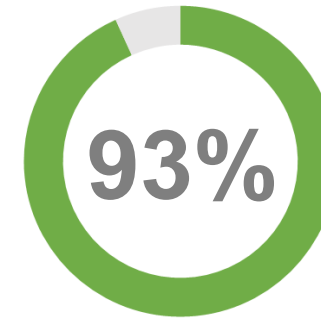
Statewide Gas 2022 Lifetime Savings



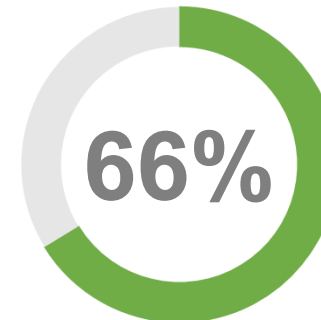
Eversource 2022 Lifetime Savings

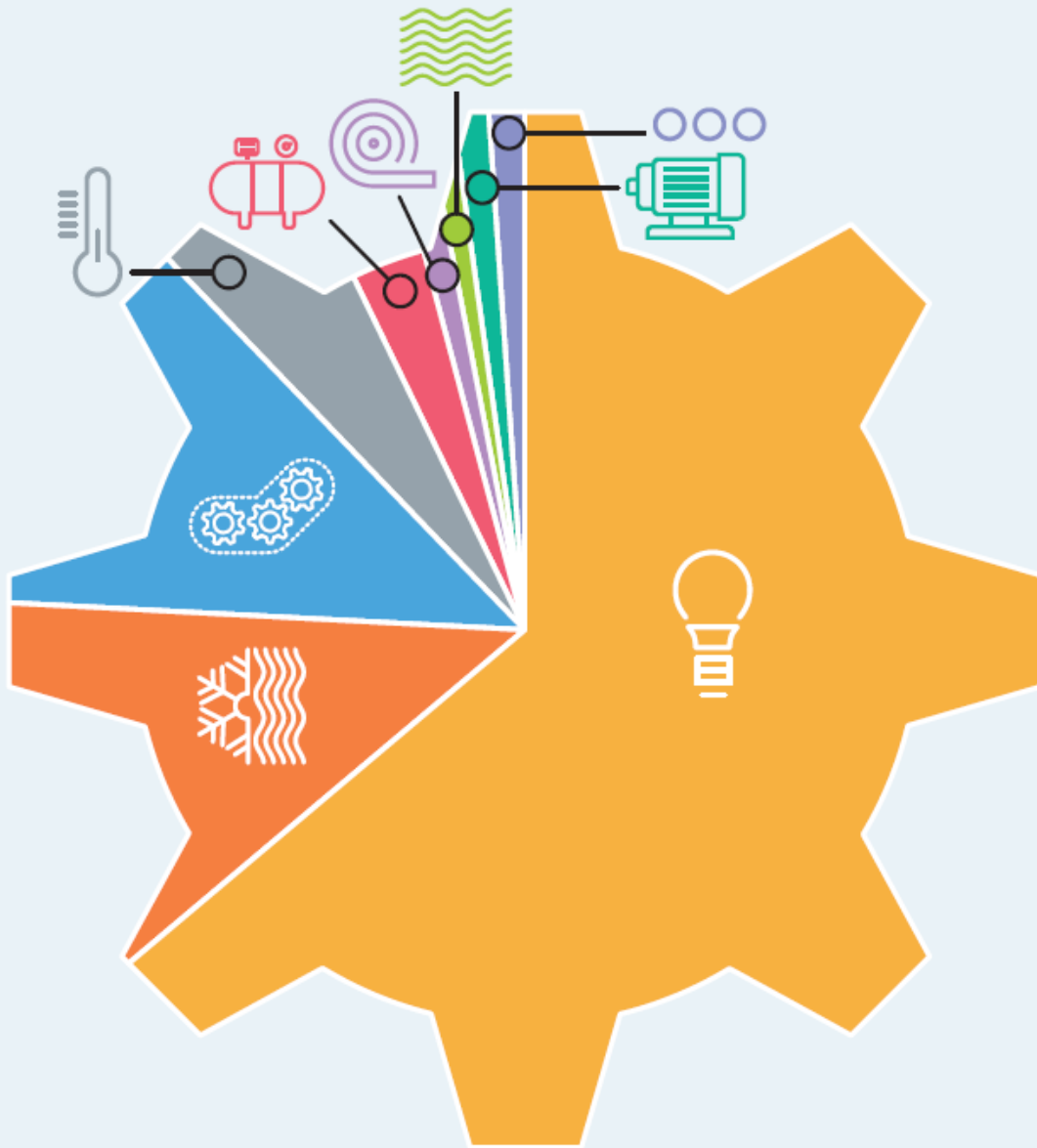


SCG 2022 Lifetime Savings



CNG 2022 Lifetime Savings

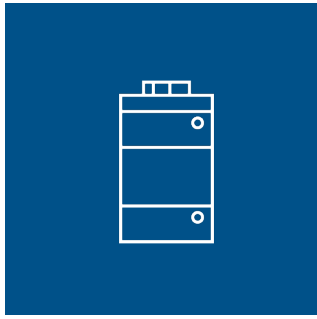




- 64% from Lighting
- 12% from Heating and Cooling
- 12% from Process
- 5% from Refrigeration
- 3% from Compressed Air
- 1% from Building Envelope
- 1% from Hot Water
- 1% from Motors
- 1% from Other

Units are in MMBTUs

Measure Mix



Non-condensing to condensing boilers or furnaces (ISP)



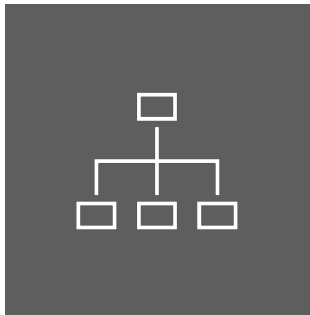
Lighting/EISA Updates



Heat pumps



ISP/IECC 2021 Code Updates



Comprehensive Structure



Budget Updates for 2023



HVAC Early Retirement (Q2)

Information on Federal Resources through IRA: <https://energizect.com/inflation-reduction-act-faqs>

2023 Program Changes

Commercial & Industrial Heat Pump Overview

Mia Lombardi, Eversource





Manufacturers

Technical requirements

Industry partner resources



Distributors

Collaborative trainings

Supply chain / inventory insight



Contractors

Quality assurance

Best practices

Customer resources

Channel Support & Engagement

Heat Pump Equipment Types

- **Air Source Heat Pumps**
 - Mini-splits
 - Central/ducted
 - Packaged
- **Variable Refrigerant Flow (VRF) Heat Pumps**
- **Ground Source Heat Pumps**
 - Brine to Air
 - Brine to Water



Decarbonization Potential

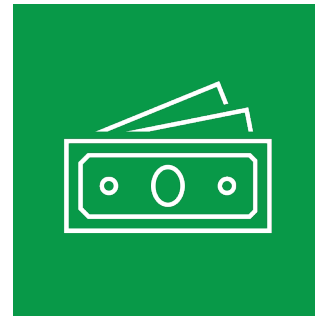




Lower carbon
heating and cooling



Heating and
cooling in one unit



Lower cost heating
and cooling

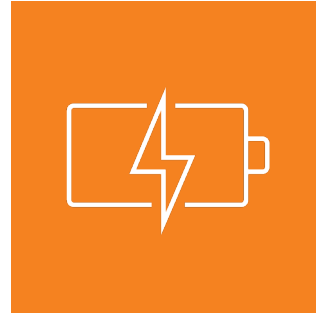


Flexible
configuration /
installation

Heat Pump Value Proposition



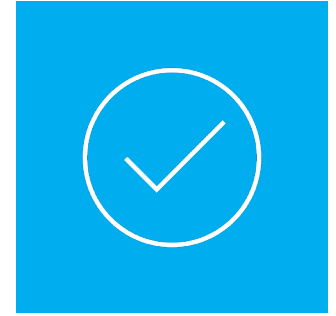
Increase comfort



Reduce energy
usage



Reduce
greenhouse gas
emissions

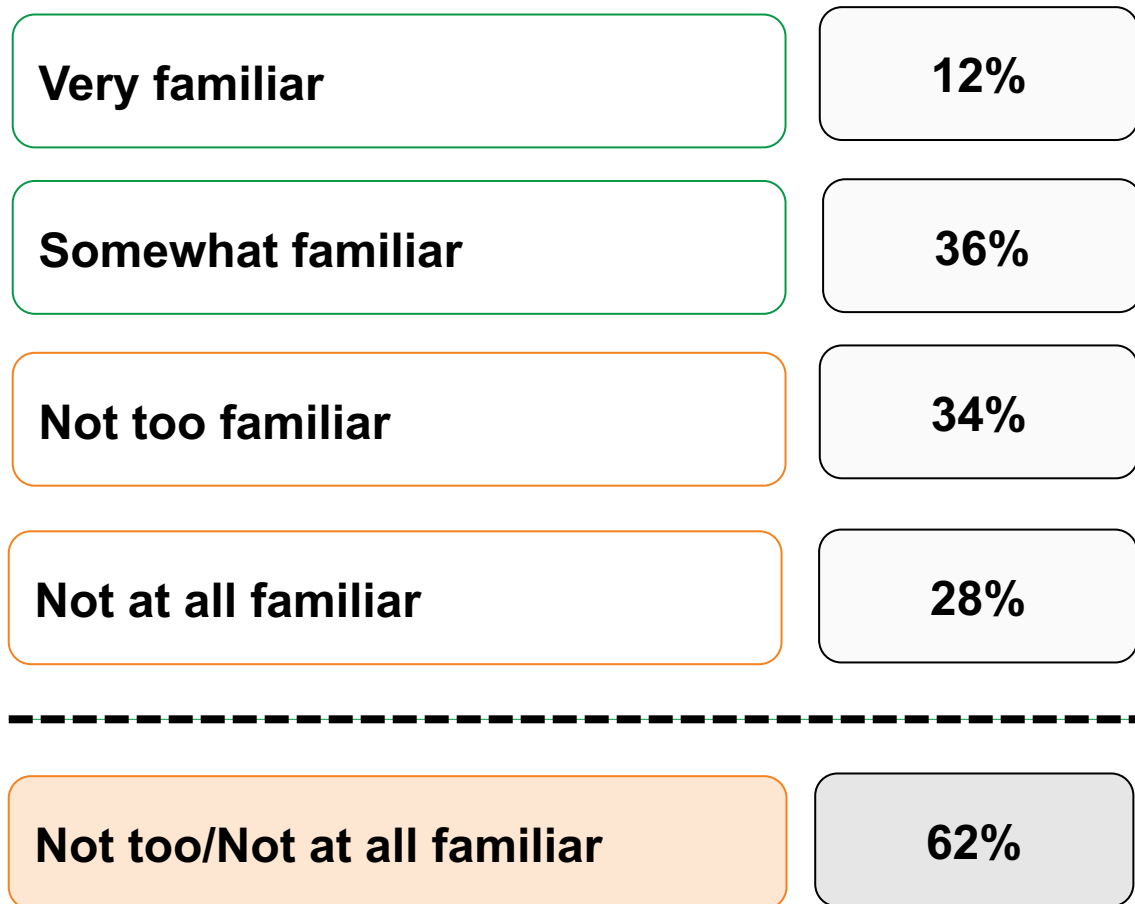


Ensure proper
sizing and
operation

Heat Pumps + Weatherization



Overall Familiarity with Heat Pumps



Residential Post-Installation Customer Satisfaction



94% satisfaction with installation and system performance

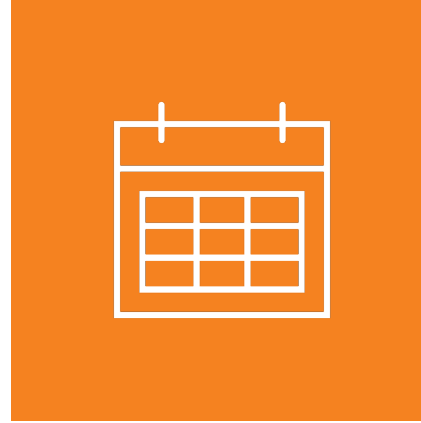


Incentives & Eligibility

[EnergizeCT.com/HeatPump](https://energizect.com/HeatPump)



Efficiency requirements for heat pumps < 5.4 tons updated to align with the **new federal standards**



Any models that meet the 2022 criteria will be considered eligible for installation through **December 31, 2023**



A **complete list of eligible units** will continue to be maintained and available at [EnergizeCT.com](https://www.energizect.com)

Air Source Heat Pump Efficiency Requirements (< 5.4 Tons)



Simplified instant
(midstream)
incentives



Introduced
additional
incentives for fuel-
switching projects



Support natural gas
to heat pump
conversions

1



2

Instant (Point of Purchase) Incentives:

- Equipment must be purchased through a participating distributor
- Equipment must be AHRI rated. Systems under 5.4 tons must be on the [Heat Pump Qualified Products List](#). Systems 5.4 tons or greater must meet the minimum requirements on the measure list

Energy Optimization Rebates:

- Equipment must be used as the primary heating system for the majority of the heating season (cooling only units do not qualify)
- Equipment must replace existing oil, propane, natural gas, or electric resistance (existing heat pumps or dual fuel systems do not qualify)
- If an existing oil, propane, or natural gas system will continue to be used, customers must either install an integrated control **or** provide proof that a building management system can control both the existing system and the heat pump.
- Equipment must be installed by a contractor participating in the [Energize CT Heat Pump Installer Network](#).

Retrofit projects can qualify for both incentives.

Energy Optimization Rebate Claim Options

1

Work with an Energy Efficiency Consultant to receive a pre-approval letter

2

Apply through the Energize CT Commercial Online Rebate portal

3

Submit a completed Heat Pump Rebate Form via email or mail

Required Documentation:

IRS W9 Form (For Payee)

Contractor Invoice including:

Contractor Information

Equipment Manufacturer and Model Numbers

Integrated Control Model Numbers (if applicable)

Installation Date

Installation Address

Total Install Cost

Marked Paid in Full

Documentation of control sequence (if applicable)

2023 Energize CT Commercial Heat Pump Incentives

Equipment Type	Equipment Capacity (AHRI Cooling Capacity)		Efficiency Requirements			Instant Discount	Energy Optimization Rebate*
			EER	IEER	COP		
Air Source Heat Pumps	<5.4 tons		Energize CT HPQPL			\$250/Ton	\$2,000/Ton
	≥ 5.4 Tons and < 11.3 Tons		11.8	15.4	3.5		
	≥ 11.3 Tons and < 20 Tons		10.9	14.6	3.4		
	≥ 20 Tons and < 30 Tons		10.3	13	3.3		
Variable Refrigerant Flow (VRF) Heat Pumps	≥ 5.4 Tons and < 11.3 Tons		11.3	18.9	3.4	\$250/Ton	\$3,000/Ton
	≥ 11.3 Tons and < 20 Tons		10.9	18	3.3		
Ground Source Heat Pumps (Closed Loop)	Brine to Air	< 11.3 Tons	17.1	-	3.6	-	\$4,000/Ton
	Brine to Water	< 5.4 Tons	16.1	-	3.1		
		≥ 5.4 Tons and < 11.3 Tons	16.1		3.0		

*Energy optimization rebates are additional incentives available only for qualified equipment installed by a contractor participating in the Energize CT Heat Pump Installer Network as the primary heat source in an existing building.

Retrofit Incentives (Existing Buildings)

Large Commercial & Industrial Retrofits

Contact your electric utility for:

- Individual systems > 30 tons
- Projects totaling > 30 tons
- Projects with complex internal distribution layouts
- Heat pump equipment not listed (e.g., air to water heat pumps, water source heat pumps)



New Construction & Major Renovation

Please note: Retrofit incentives are not available for New Construction or Major Renovations projects

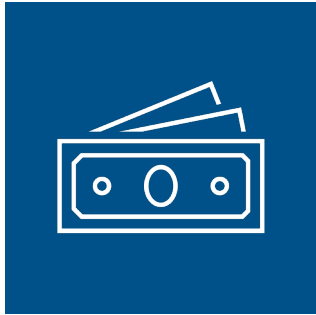
For information on available incentives, join the team at 1PM





Resources & Support

[EnergizeCT.com/HPIN](https://energizeCT.com/HPIN)



Energy optimization rebates
(for fuel-switching projects)



Listing on EnergizeCT.com



Marketing materials



Technical resources and support

Cold Climate Heat Pump Courses

Energize CT eLearning Center

2023 Heat Pump Program Overview

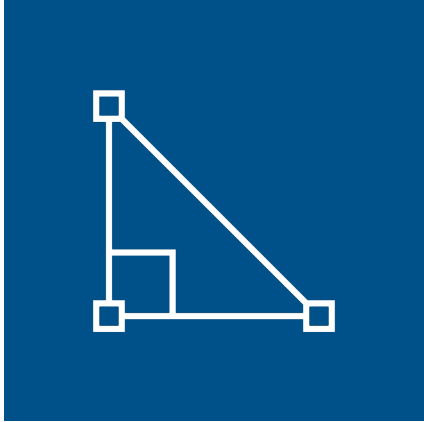
- Program equipment eligibility
- Heat Pump rebates and financing
- Heat Pump Installer Network participation
- Available resources

Air Source Heat Pump Sizing and Design

- Basic heat pump operation
- Using load calculations
- System sizing and specifications
- Design options and considerations
- Controls and thermostats
- Recommended practices

Mini-Split Heat Pump Installation Best Practices

- Common air source heat pump myths and facts
- Best practice tips for heat pump placement, installation, operation
- System placement and installation fundamentals
- Review of heat pump user tips



Scoping Studies



Technical Assistance Studies

Heat Pump Installer Monthly Newsletter

- Announcements
- Incentive highlights
- Available resources
- Reminders
- Upcoming industry trainings
- Contact information

EnergizeCT@AbodeEM.com

ENERGIZE CONNECTICUTSM HEAT PUMP NEWSLETTER

January 2023



2023 Heat Pump Rebate Eligibility

In addition to the \$250/ton instant discounts available for eligible air source heat pumps, customers with pre-existing natural gas systems can now access additional [Air Source Heat Pump Energy Optimization Rebates](#) once a qualified install is complete. Please note, if a natural gas heating system will be left in place to supplement a new heat pump, an integrated control must be installed.

Ground Source Heat Pump Rebate Increase

Good news. [Ground Source Heat Pump Energy Optimization Rebates](#) have increased to \$2,000/ton and \$4,000/ton for businesses, effective January 1, 2023. Ground source heat pump contractors must enroll in the [Heat Pump Installer Network](#) to offer Energy Optimization rebates.

Residential Insulation and Heat Pump Bonus Introduced

Heat pumps installed in a properly insulated home can dramatically improve comfort and reduce operating costs. To encourage customers to consider efficiency first, the Sponsors of Energize CT have introduced a \$500 bonus to customers who complete insulation through the Energize CT Home Energy SolutionsSM service within 12 months prior to heat pump installation. Customers can claim this bonus when submitting the [Air Source Heat Pump Energy Optimization rebate form](#).

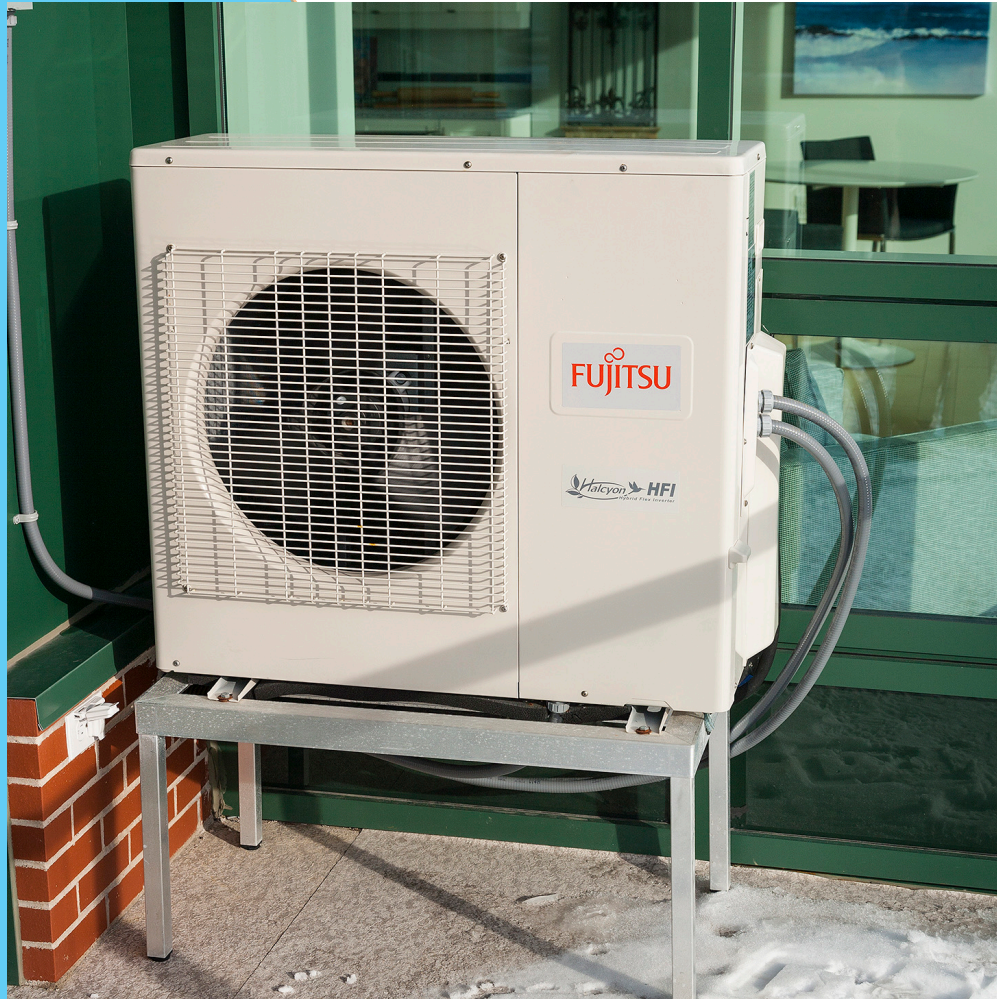
Reminder: 2023 Efficiency Requirements

Residentially-sized air source heat pump minimum efficiency requirements will be updated to align with the new federal standards (i.e., ENERGY STAR[®] 6.1 Cold Climate

Requirements to Join

- Signed Participation Agreement
- HVAC or Electrical Contractor License
- Certificate of Comprehensive General Liability Insurance
- EPA Section 608 Certification
- Certification of relevant training:
 - **Air Source Heat Pump installers:** Certification of installation training provided by a heat pump manufacturer
 - **Ground Source Heat Pump installers:** International Ground-Source Heat Pump Association (IGSHPA) Installer OR GeoExchange Designer certificate





Decarbonization Opportunities

Ryan Willingham, Eversource



Existing heating
fuel



Equipment and
facility conditions

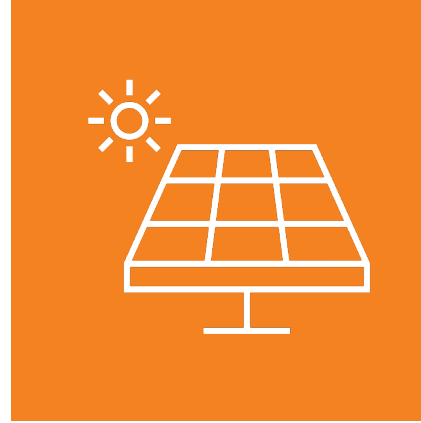


Other funding
opportunities

Economic Considerations



Sectors leading the charge



Focus on climate change mitigation

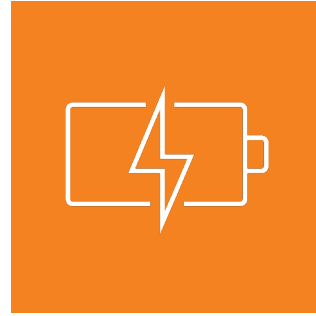


Additional motivations

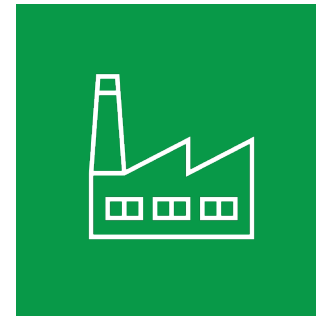
Customer Considerations



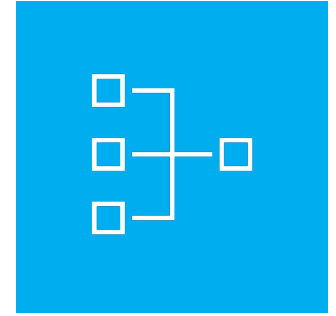
Weatherization
opportunity



Electric service
capacity



Physical
limitations



Existing heating
equipment

Site Considerations



Questions

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Session Break-Outs

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Session 4 (12:30 – 1:00p)

Financing & Business Energy and Sustainability

5

Session 5 (1:00p-1:30p)

New Construction & Electric Vehicle Charging

Online Resources

- [Heat Pump Solutions Page](#)
- [Air Source Heat Pump Incentives](#)
- [Ground Source Heat Pump Incentives](#)
- [Commercial Energy Optimization Rebate Form](#)
- [Heat Pump Installer Network](#)
- [Heat Pump Installer Network Look-up](#)
- [Energize CT eLearning Center](#)