

Clean Heat and Solar for Low-and-Moderate Income Bronx Households WEBINAR



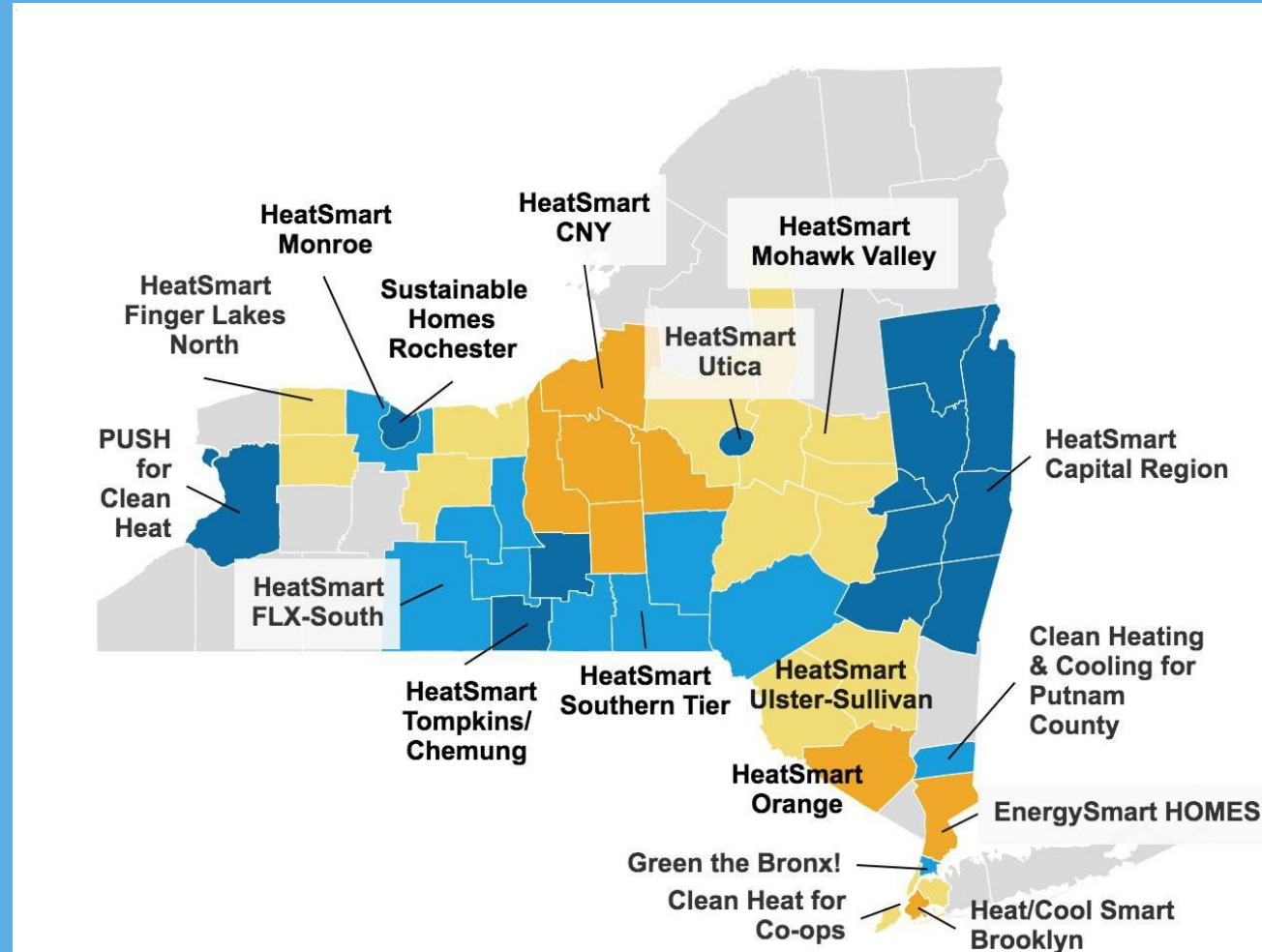
Co-Sponsored By:



NYSERDA Clean Heating & Cooling Communities

Heat/Cool Smart Brooklyn is one of many active NYSERDA CH&CC

campaigns across New York State



Beneficial Building Electrification and Energy Efficiency

100% zero-emissions electricity by 2040 under the Climate Act.

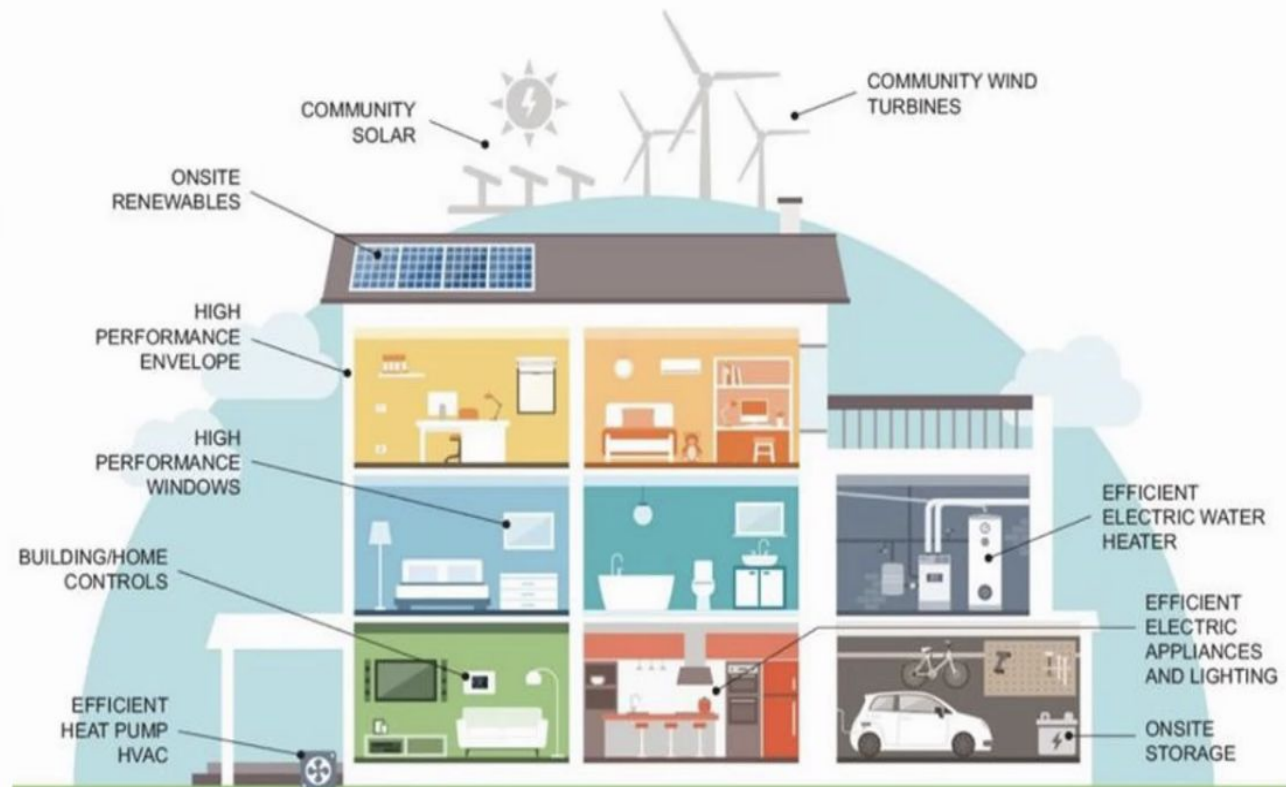
Electrification of heating and hot water systems is the key strategy for building decarbonization and **energy efficiency improvements** in all buildings.

Scope of Panel:

Eliminate on-site GHG emissions from the combustion of fossil fuels

- Residential
- Commercial and Institutional

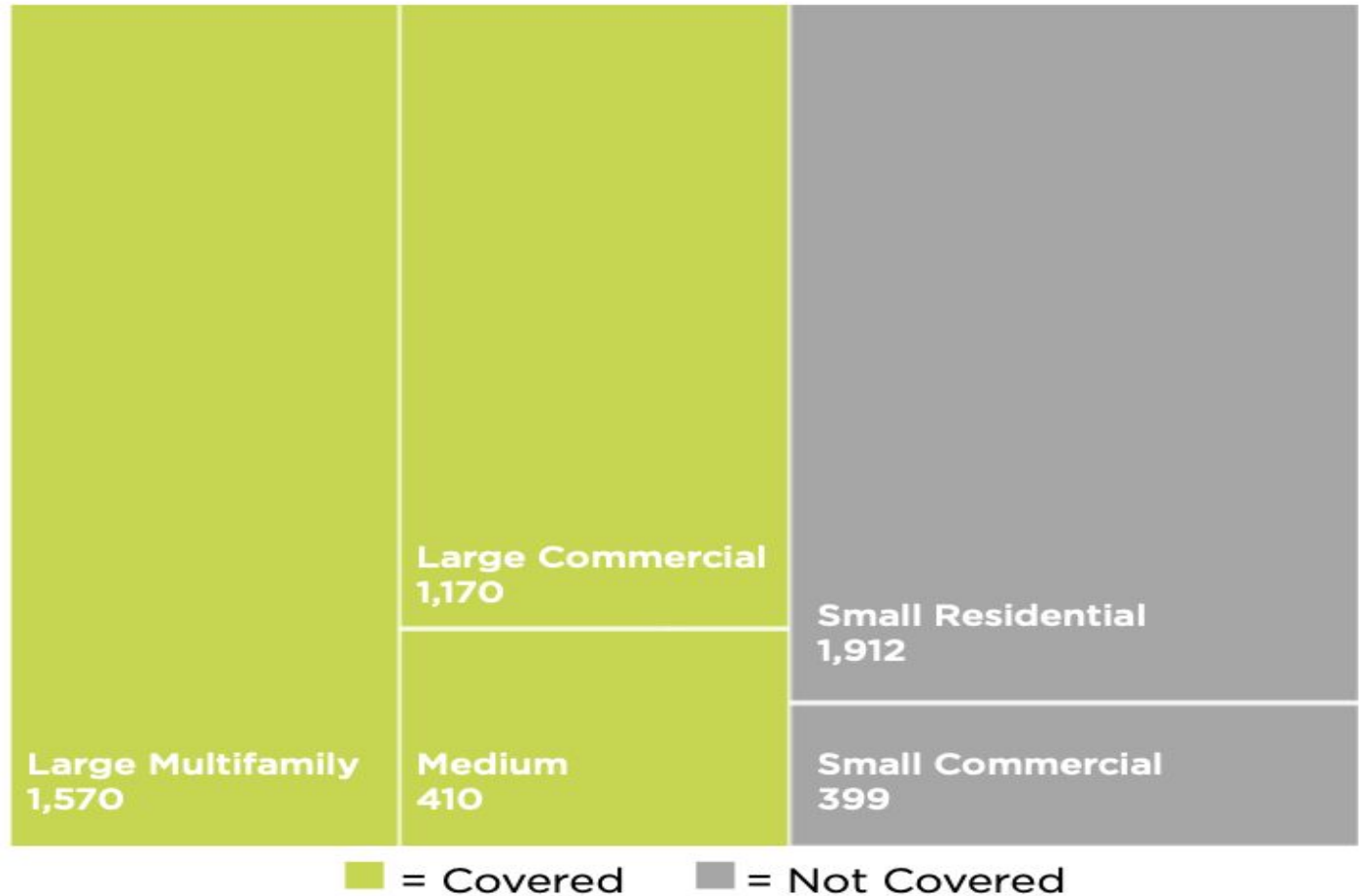
The Panel adopted a building-level focus; further analysis is needed in campus and community thermal networks, and specialized uses in industry and critical care.



Small residential and commercial buildings comprise 40% of NYC's building area and currently are without carbon emissions regulation.

FIGURE 2**Citywide Building Areas**

Nearly 60 percent (3.15 billion SF) of NYC building area is covered by the emissions law. Medium buildings are between 25,000 SF and 50,000 SF.



**Millions of square feet*

SOURCE: NYC DEPARTMENT OF PLANNING PLUTO DATASET 2017

Co-Sponsored By:



Panelists

- **Ryan Merkin: Director of Business Development, Blocpower**
- **Francis Rodriguez: Director Weatherization, Association of Energy Affordability**
- **Robert McCool & Bruno Estrada: Barrio Solar**
- **Betta Broad: Director of Advocacy : Association for Energy Affordability**

WEBINAR GOALS

- **Learn how clean heat, weatherization and solar can improve your home and how to sign up for services**
- **Understand various incentives and financing for LMI projects
WAP, Assisted Home Performance, Empower and HEAP**

LMI Programs to support Clean Heat Retrofits

Assisted Home Performance <80% median
county income

Empower <60% median income

HEAP ARPA Funds<60%

Weatherization Assistance Program <60%
median income

NYS PROGRAMS:



- NYSERDA
 - EmPower
 - Assisted Home Performance
 - HEAP Supplemental
 - Market Rate
- NYSERDA Subsidized
 - Financing EFS Low
- Interest Loans
- Clean Heat Program

	Income Guidelines	Income Eligible Discounts
Assisted Home Performance	< 80% of household county median income (family of four - \$95,450)	50% up to \$5,000
EmPowe r	< 60% of household state median income (family of four - \$62,988)	100% up to \$10,000

HEAP PROGRAM

- All HEAP customers with an award letter dated October 1, 2021 or later with a valid CIN are eligible to receive ARPA funding.
- All customers can receive envelope, health & safety, and HPWH
- measures. All homes receiving heat pumps must meet minimum insulation
- levels.

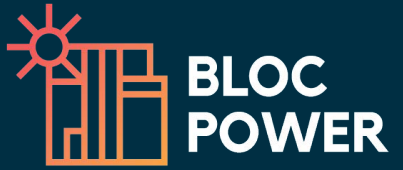
100% funding up to \$20,000 with Clean Heat incentives.



CLEAN HEAT INCENTIVES

Con Edison

- Based on efficiency and size of system installed Average of
 - \$10,000 to \$20,000 in utility incentives Can be combined with
 - LMI incentives



BlocPower

Smarter, greener, and healthier electric
buildings for all

Ryan Merkin

About BlocPower

- BlocPower is a minority-owned clean tech company founded in 2014, focused on greening residential and small commercial buildings in the U.S.
- BlocPower develops and finances energy efficiency and clean energy projects for building owners in dense urban areas.



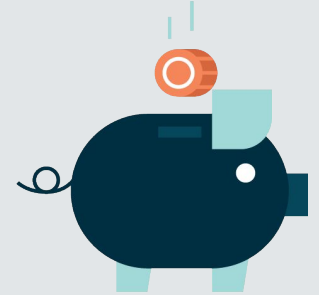
nationalgrid



ANDREESSEN
HOROWITZ



Our software platform streamlines the process of designing and installing these projects, **cutting down the time and cost** of completing an energy project.



BlocPower financing enables building owners to get much-needed energy-saving infrastructure improvements with **no money upfront** and projects can be profitable day one.

Environmental and social factors drive Building Electrification

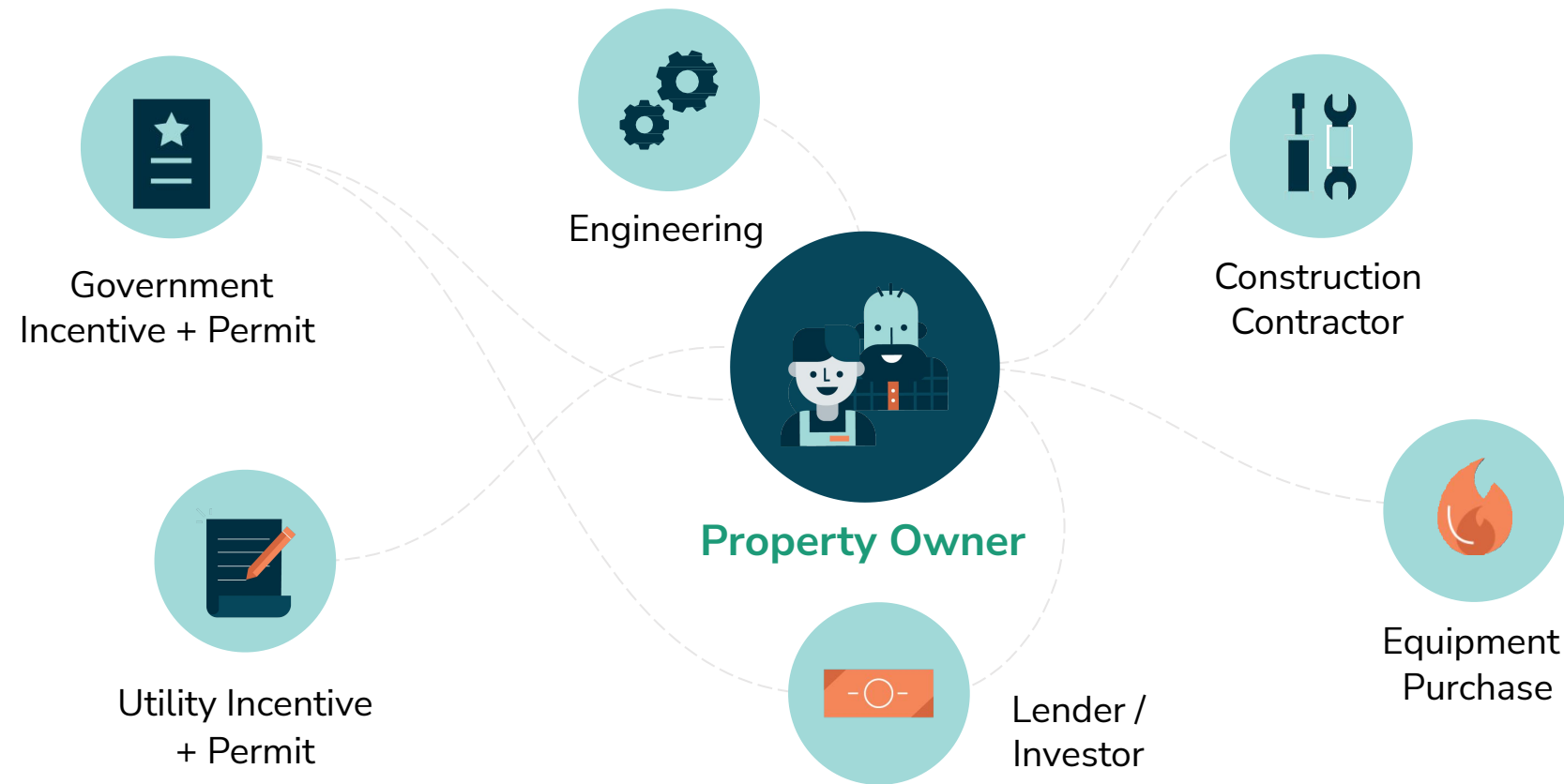


- **Health** - indoor air quality, compounded by deferred maintenance, pandemic, wildfires and natural disasters
- **Equity** - mandates to direct benefits toward disadvantaged communities highlight gaps in building infrastructure
- **Climate Change** - Federal, state and city governments have identified building electrification as a critical component of their climate action plans and roadmaps and have enacted policies to reduce fossil fuel use
- **Financial incentives** - over 1,800 incentive programs now exist across the US to support owners in electrifying their heating, cooling and hot water
- **Green Workforce Development** - programs introducing electrification training

To electrify, property owners must hire 6-12 parties across multiple industries

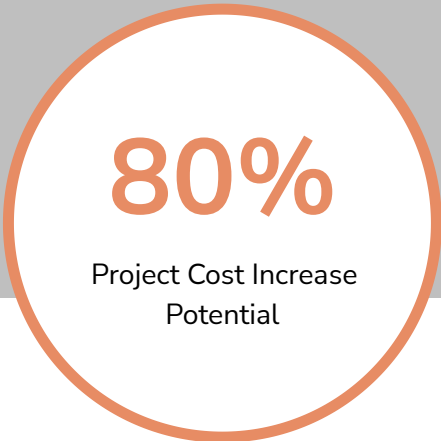


The problem: complexity



Fragmented datasets and communication prevent efficient project assessment and collaboration

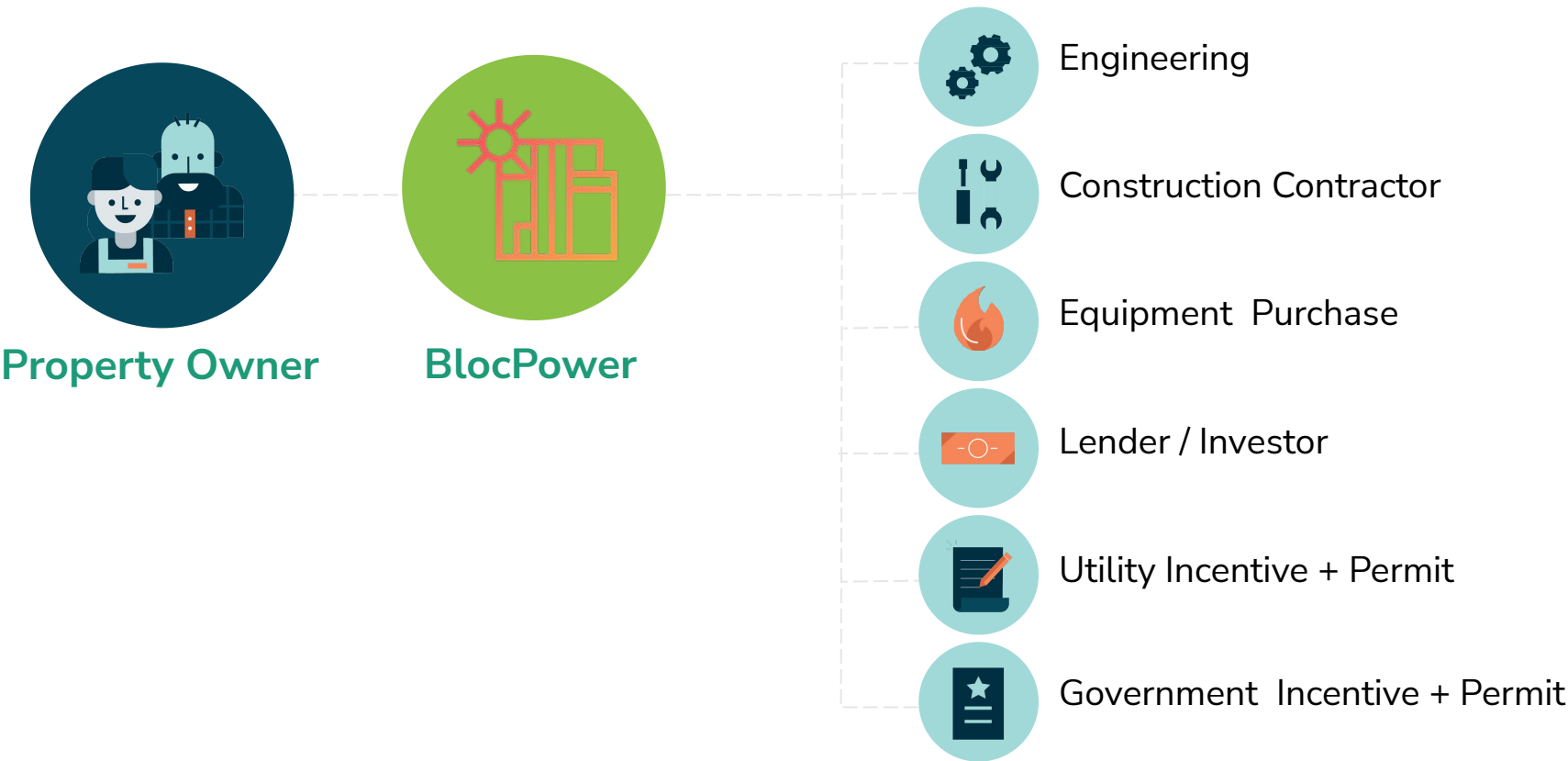
This drives up costs, reduces profitability, and prevents **5 million SMEs** from upgrading.



BlocPower delivers a one-stop solution for building owners, working with local partners



The solution: a steward of the customer experience



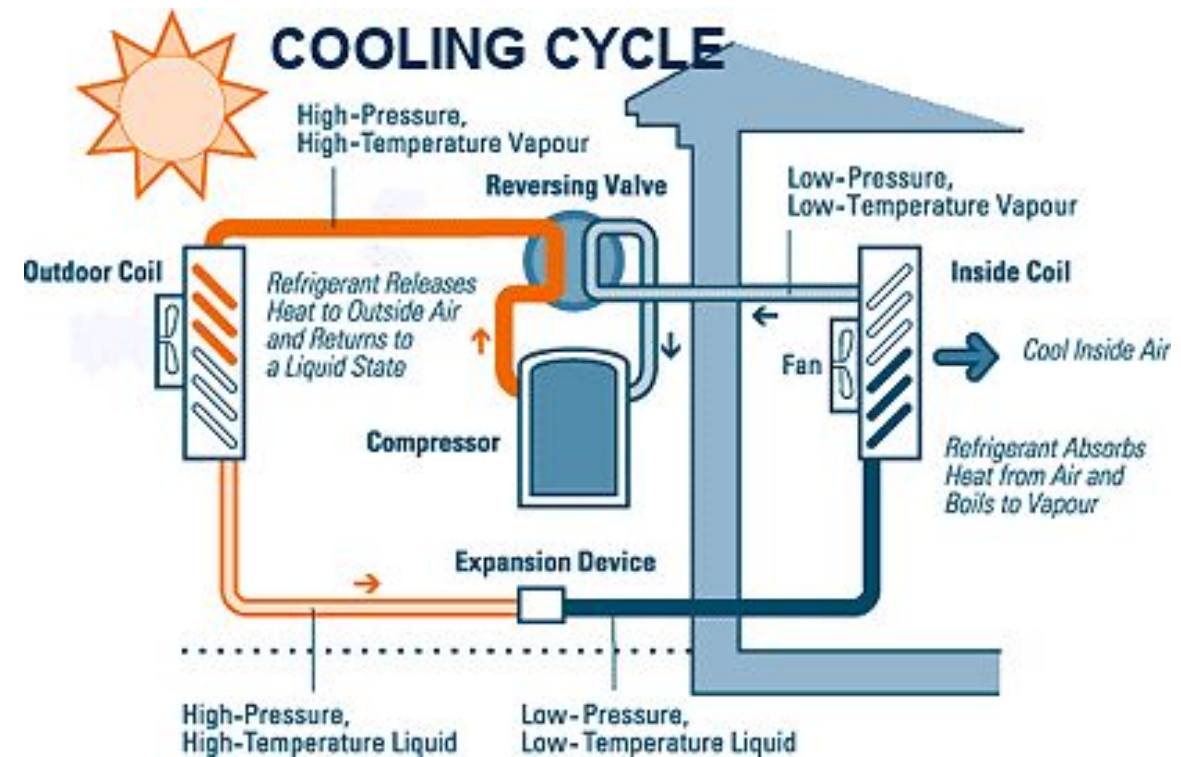
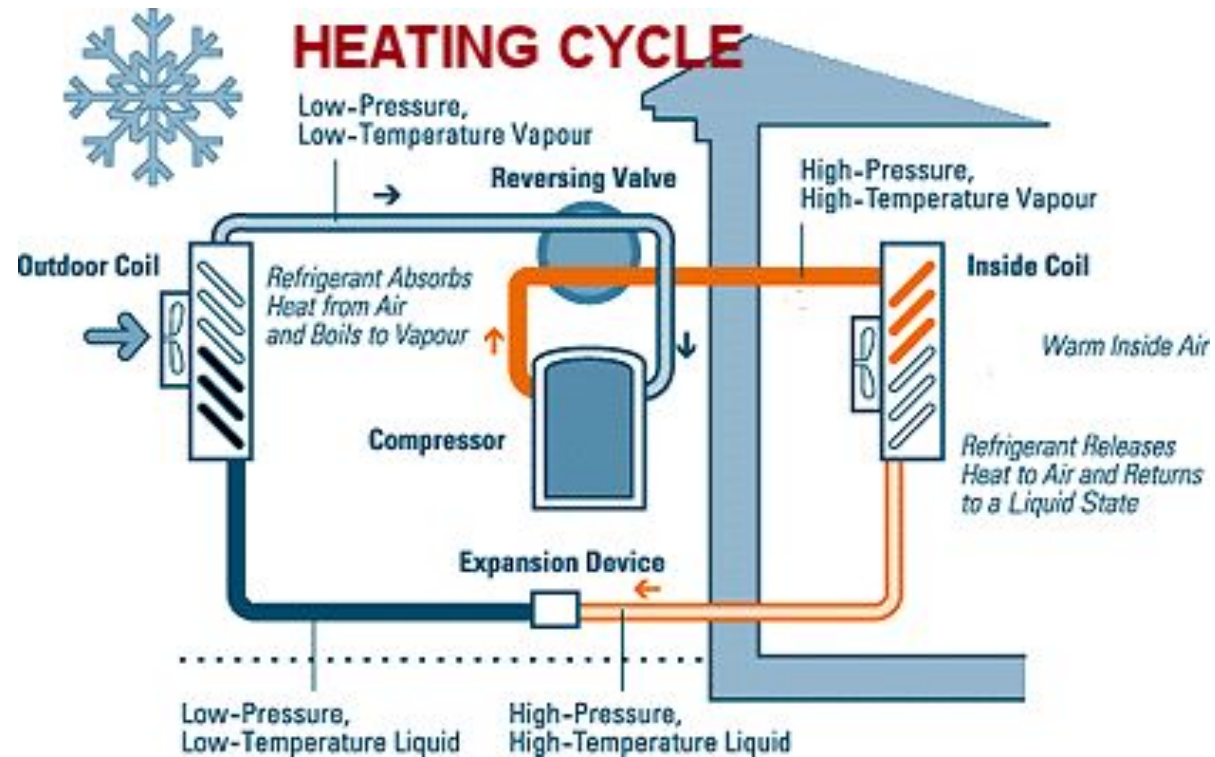


Software streamlines project management and keeps costs low



Financial offering eliminates upfront cost & structures payments to match savings

AIR SOURCE HEAT PUMPS: HOW THEY WORK



AIR TO AIR HEAT PUMPS: HEATING & COOLING

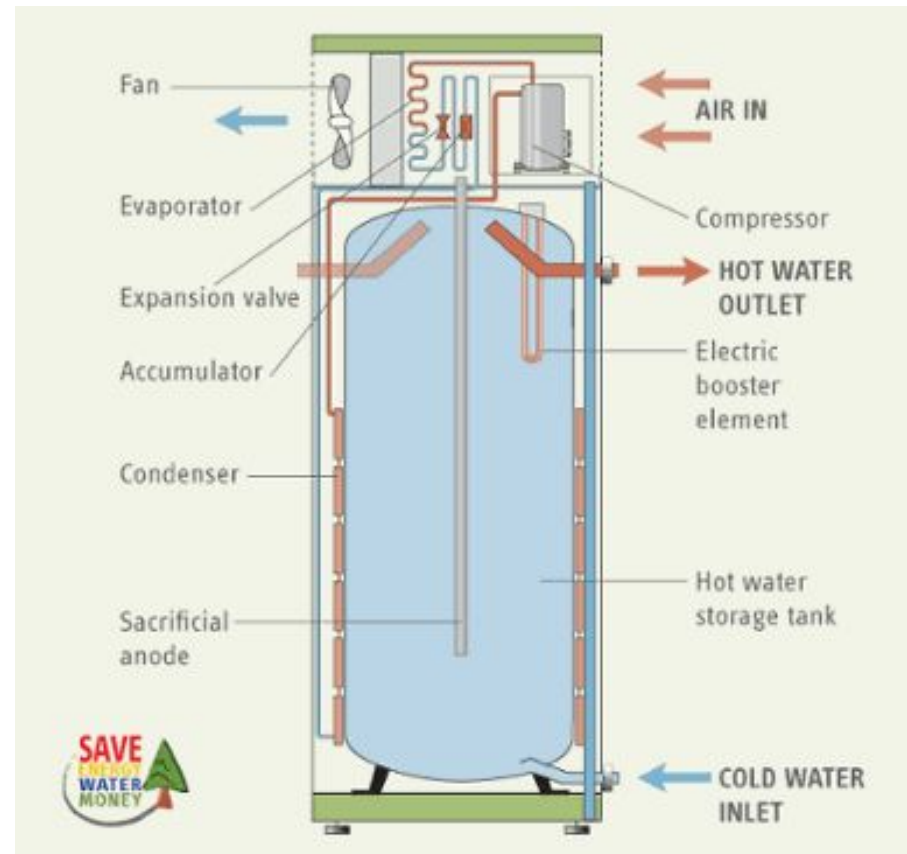
Multi-split system



VRF

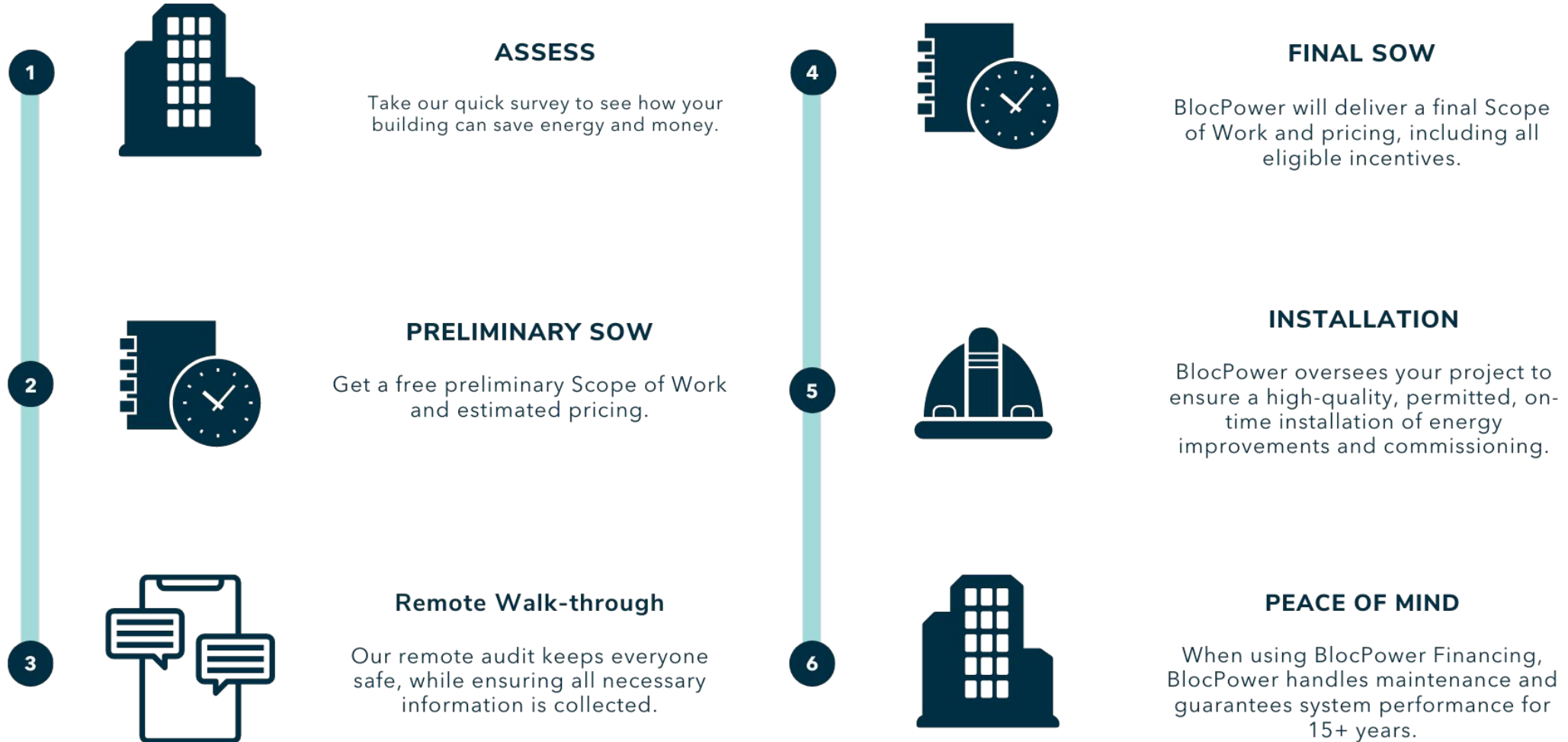


HEAT PUMPS: HOT WATER





Our Process



Heat Pumps

Features:

- 15 Year contract
- Low annual escalation in payment
- Full guarantee on equipment and service
- All O&M included
- Purchase, renew or remove options at end of term



As-A-Service

Benefits:

- No upfront capital needed to take action
- Easy entry to learn about unfamiliar technology
- System guaranteed to function for customer
- Significant savings compared to oil

Single Family Home, Bronx NY

Air Source Heat Pump + Solar Installation

BlocPower worked on a single-family home located in Bronx, New York City. The building was originally built in 1956 as a two-floor, three-unit home. The owner was experiencing uneven heating in the building and was lacking a reliable cooling system. BlocPower came to the rescue and replaced this system with brand-new air source heat pumps (ASHPs)!



Indoor ASHP Unit



Green Jobs Green NY

This home utilized NYSERDA's GJGNY program, which provides New Yorkers access to energy assessments, installation services, low interest financing, and pathways to training for various green-collar careers. GJGNY offers financing to help residential customers make energy upgrades.

Project Details:

- Project cost w/incentive: \$23,814
- NYSERDA heat pump incentive: \$1,000
- 15 year maintenance included
- 15 year BlocPower lease term
- The building owner will save approx. 15% on annual utility costs and maintenance.
- BlocPower provided technical assistance throughout this emergency project.



Indoor ASHP Unit

Savings (8-unit HDFC Co-Op)



Air Source Heat Pumps will lower or eliminate many of your building's costs and save you money.

Cost Item	Current Spend	Post Install Spend	Difference
Fuel (oil)	\$0 / year	\$0 / year	+\$0 / year
Natural Gas	\$6,720 / year	\$1,680 / year	+\$5,040 / year
Electricity	\$758 / year	\$3,674 / year	-\$2,915 / year
O&M + Repairs*	\$2,000 / year	\$0 / year	+\$2,000 / year
Avoided Cost of Boiler Replacement***	\$7,165 / year	\$0 / year	+\$7,165 / year
Average Total Saved Over the Lease Period			\$11,290 / year
Total Saved Monthly on Average			+\$941 / month

*BlocPower provides complimentary O&M services for 15 years.

***Assuming payments on a loan at 6.0% interest, 7 year repayment, and \$40,000 cost.



BlocPower Lease Payment Options (8-unit HDFC co-op)

Flexible financing can reduce your air source heat pump up-front costs to zero dollars.

Money Down Scenario	BlocPower Lease Monthly Payment*	Monthly Savings After Lease Payment
No Money Down	\$325 / month	\$616 / month
\$10,000 Down	\$225 / month	\$716 / month
\$54,560 Down	\$0 / month	\$941 / month

*Based on a 15-year term with 1% annual escalation

The BlocPower Lease Benefits

- ✓ No Money Down. No Loan.
- ✓ No lien on home.
- ✓ Low, predictable monthly payments.
- ✓ 15-year performance guarantee.
- ✓ Regular maintenance included in lease.



BlocPower Impact

1,200+

Energy efficiency and electrification projects completed

- Air source heat pumps
- Solar installations
- Building envelope updates
- Deep retrofits including lead and asbestos removal
- LED lighting

\$1,165

Estimated average annual energy bill savings to customers

- \$0-down lease financing including installation, maintenance, and repair

155

Jobs created

- 1500+ Workforce trained
- Workforce development focusing on minorities, women, veterans and previously incarcerated citizens



Thank You!

ryan@bloccpower.io

917-312-8187

Weatherization Assistance Program

WAP

Francis Rodriguez, Weatherization Director

August 18, 2022

What is WAP?

- Weatherization is a federal assisted program that enables low-income families, and landlords of low-income buildings, to reduce their energy bills by making their homes or buildings more energy efficient.
- The Weatherization Assistance Program (WAP) reduces energy costs by increasing the energy efficiency of their homes/building, while ensuring their health and safety.
- It is a free program for those families that meet the qualification guidelines, and it is a reduced cost program for landlords of buildings that meet these guidelines.



How to Qualify

1. For 1-4 family home

- 50% of the units must meet the qualifications Eligibility
- The work is free if the homeowner qualifies



How to Qualify

1. For Multifamily 5 or more units
 - 66% of the units must meet the qualifications Eligibility
 - The landlord pays at least 25% of the scope of work



Categorical Eligibility

a unit will be deemed eligible if any member of the unit receives any of the following

- Supplemental Security Income
 - Current Year award Letter
- Public Assistance
 - Current Year award Letter
- Food Stamp
 - Current year award letter or copy of Electronic Benefit Transfer (EBT) card with a current debit purchase receipt
- HEAP –Regular Benefits
 - Current Year award Letter

Income Guidelines

The unit total income must be under this guidelines

2021-22 WEATHERIZATION INCOME THRESHOLD

Household Size	Monthly Income	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	\$7,772	\$93,260
9	\$8,558	\$102,700
10	\$9,345	\$112,140
*each additional person per household		\$9,440

How does it work?

1. The homeowner/landlord applies to the local provider
2. The eligibility criteria is determined for the house/building
3. An energy audit is completed
4. Procurement is performed for the items in the audit
5. An agreement is signed with the owner of the property for the work deemed cost effective or health and safety related
6. Contractors/crew are deployed to complete the agreed scope of work
7. Work is construction managed by WAP staff and inspected by funder

WAP Eligible Measures

- Heating system repair/replacement
- Building Air Sealing
- Roof and sidewall insulation
- Windows repair/replacement
- Refrigerators Replacement
- LED bulbs and light fixtures

New Measures

- Heat Pumps Systems for Domestic Hot Water and Heating and Cooling
- Solar PV systems
- Mechanical Ventilation Equipment



Bronx

Northwest Bronx Community and Clergy Coalition
Northwest Bronx 718-584-0515

Association for Energy Affordability
South Bronx 718-292-6733

Queens:

HANAC

West Queens 718-626-7575

Astoria

Association for Energy Affordability, Inc

Central Queens 718-292-6733

Ridgewood thru Little Neck

Margert Community Corporation

Rockaways 718-471-3724

Eastern Queens

Thank You!

Francis Rodriguez

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718-292-6733 ext. 8211



BARRIO SOLAR



Fifth Avenue Committee
Our Community. Our Future.



neighbors
helping
neighbors

an affiliate of Fifth Avenue Committee

SOLARone



Barrio Solar Goals

- Help NYC 1 to 4-family homeowners reduce electricity costs
- Reduce cost barriers to installing solar
- Combat climate change
- Guide and support homeowners considering solar panels
- When solar panels are not feasible, help homeowners access community solar

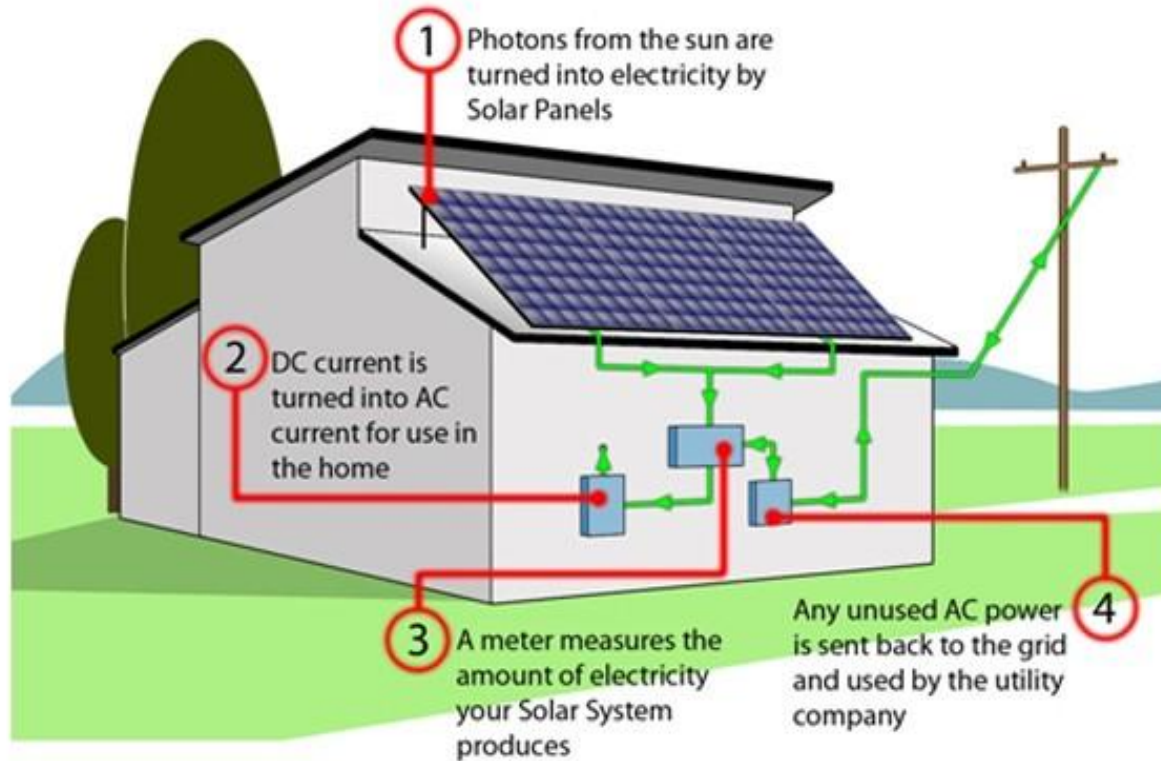


www.barriosolar.com

646-820-1301



Solar 101



1. The sun LIGHT provides PHOTONS which react with the compounds of the solar cells in a solar panel.
2. The solar array produces Direct Current (DC -much like a battery in your cellphone or car). The DC is inverted in Alternating Current (AC) which is what is used in your homes, and what you receive from ConEdison.
3. The energy is measured in Watts/Kilo Watts to track production of your array.
4. Energy is first consumed directly by the property, and all unused energy is sent to the grid via a bidirectional meter that measures both consumption and production.

Image Credit: Solar Naturally



Solar Panels



- 25+ year operating life
 - Best on 0-5 year-old roofs
- Low maintenance
- Requires direct sunlight
 - No shading from trees or other buildings
- Grid-connected
 - Does not provide power in a blackout



Campaign Highlights

- Reduced costs with community-based buying group
- Up to \$5,000 cash subsidy (for qualified homeowners)
- \$0 down solar panel installations
- Free solar feasibility analysis
- Free savings estimate
- Campaign is open to **ALL** 1-4 family homeowners in New York City
(Targeted outreach in LMI and BIPOC neighborhoods)



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646-820-1301



Solar Incentives



There are generous incentives for solar in NYC! Between the NYSERDA NY-Sun Affordable Incentive, the Barrio Solar subsidy, and tax incentives, **more than 90% of the cost of solar can be offset for a low-income homeowner.**

Sample 4 kW Solar Project Costs and Incentives

Total Installed Cost:	\$15,800
NY-Sun Incentive (<i>pre-payment discount</i>):	\$3,160
Barrio Solar LMI Incentive (<i>pre-payment discount</i>):	\$3,500
<hr/>	
Upfront Cost (<i>amount due to installer</i>):	\$9,140
Federal Tax Credit (26%):	\$3,286
State Tax Credit (25%, <i>may be claimed over 5 yrs</i>):	\$3,160
City Property Tax Abatement (20%, <i>must be claimed over 4 yrs</i>):	\$2,528
<hr/>	
Post-Incentives Cost:	\$166



Thank you for joining us!

Contact Bruno Estrada to learn more about solar for your house:

- E-mail: Bruno@Solar1.org OR
- Phone: 646-820-1301 OR
- Info request form: www.barriosolar.com OR
- Scan:



Thank You!

Betta Broad

Betta@aeacleanenergy.org

A large, stylized green graphic of a house with a chimney, positioned on the right side of the slide.

 ASSOCIATION FOR
ENERGY AFFORDABILITY INC.