Clean Heat and Solar for Low-and-Moderate Income Households Webinar
Clean Heating and Cooling for Brooklyn Buildings

Upgrade to a clean, energy efficient heating & cooling system!

We'll help you take advantage of various available incentives and financing depending on your household income.

Volunteer on the Campaign! Visit our website.
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.

<table>
<thead>
<tr>
<th>Building Type</th>
<th>Covered (Millions of SF)</th>
<th>Not Covered (Millions of SF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Multifamily</td>
<td>1,570</td>
<td></td>
</tr>
<tr>
<td>Large Commercial</td>
<td>1,170</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>410</td>
<td></td>
</tr>
<tr>
<td>Small Residential</td>
<td>1,912</td>
<td></td>
</tr>
<tr>
<td>Small Commercial</td>
<td>399</td>
<td></td>
</tr>
</tbody>
</table>

*Millions of square feet

SOURCE: NYC DEPARTMENT OF PLANNING PLUTO DATASET 2017
Clean Heat and Solar for Low-and- Moderate Income Households
Panelists

Al Lopez: Green Team Long Island
Cristal Brown & Nellie Piranio: Sunset Park Redevelopment Committee
Byron Todman: NHS Brooklyn
Robert McCool & Bruno Estrada: Barrio Solar
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

• Learn about housing advisory services
LMI Programs to support Clean Heat Retrofits

- Smart Energy Loan Reduced Interest Rate <120% median income
- Barrio Solar <100% median income
- Assisted Home Performance <80% median county income
- Empower <60% median income
- HEAP ARPA Funds <60%
- Weatherization Assistance Program <60% median income
Al Lopez
WHOLE BUILDING APPROACH:

- Direct Install Audit
- Recommendations
  - Envelope Improvements (Heat Pump Ready)
  - Air Source Heat Pumps
  - Hybrid ASHP Water Heating
- Install
- Test out completion
THE DIRECT INSTALL ENERGY AUDIT:

- Explain the free program
- Determine eligibility
- Educate - Review options
- Comprehensive assessment
- Provide electric reduction/safety measures
- Register for the program
NYS PROGRAMS:

- NYSERDA
  - EmPower
  - Assisted Home Performance
  - HEAP Supplemental
  - Market Rate
- NYSERDA Subsidized Financing
  - EFS Low Interest Loans
- Clean Heat Program
<table>
<thead>
<tr>
<th>Assisted Home Performance</th>
<th>Assisted Home Income Guidelines</th>
<th>Assisted Home Income Eligible Discounts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt; 80% of household county median income (family of four - $95,450)</td>
<td>50% up to $5,000</td>
</tr>
<tr>
<td>EmPower</td>
<td>&lt; 60% of household state median income (family of four - $62,988)</td>
<td>100% up to $10,000</td>
</tr>
</tbody>
</table>
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 can be combined 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.
BUILDING ENVELOPE
ENERGY EFFICIENCY
Heat Pump Advantages

- Safe
- Comfortable
- Efficient
- Durable
- Scalable
- Sustainable
What is Building Electrification? ASHP 101

How do Heat Pumps Work?

How an Air Source Heat Pump Works

Summer

Heat from the air is absorbed by refrigerant in outdoor coil

Winter

Heat from the air is absorbed by refrigerant in indoor coil

© Collaborative Efficiency
Hybrid Heat Pump Water Heaters
Abaya - Case Study

• Garden Apartment done
• Four-unit Co-op
• One outdoor condenser
• 3 indoor evaporators
• Cost after rebates: $8,000
• $400-500 annual savings
Condenser

Wall Unit
Frank Case Study

• 3 Family House
• 3 ductless mini-zoned systems
• Cost after rebate $24,729
• Monthly payment $179 for 18 months
  $400-500 annual savings
Wall Mounted Compressor, Conduits
Al Lopez
SPRC was founded in 1969, servicing Brooklyn over 40 years. We are a not-for-profit community agency funded by the United States Department of Energy under the NYS Division of Housing and Committee Renewal.

We provide grants for weatherization which allow home owners to modify their properties to optimize energy conservation which in turn reduces energy bills!!!!

Weatherization Process
1. An application is processed to determine eligibility.
2. A BPI certified auditor will examine the home by performing a variety of tests, ie: Blower Door-Boiler Test, Infrared Scan etc.
3. Work scope is determined.
4. Weatherization of the home is completed.
5. State monitor inspects the job to certify quality of work.

Services may include:
- Lighting and refrigerator upgrades
- Pipe and roof insulation
- New smoke and carbon monoxide detectors
- New shower heads, faucet aerators
- And more!

Contact us for more details.
How does the Weatherization Assistance Program (WAP) benefit you?

- 50% or more savings on your contribution for energy saving measures, and
- Save money on your energy bill

How does it work?

If your building qualifies, WAP provides funds for landlords to modify their properties to optimize energy conservation measures via SPRC. Services may include:

- Lighting and refrigerator upgrades
- Pipe, roof and wall insulation
- New smoke and carbon monoxide detectors
- New shower heads, faucet aerators
- Boiler and hot water heaters
- Sealing air bypasses
- Windows and doors
How To Apply

Tenants (Renters)  Owners – Homes (1-4 Units)  Landlords – Homes (5+ Units)
Required Documentation

Proof of Ownership
- Deed or Trust
- Current property tax statement

Fuel Report/Invoices
- If Gas: call National Grid (718-643-4050) and ask for meter breakdown report to be mailed to you.
- If Oil: contact company and ask for invoices reflecting gallons of oil used per month for the last 2 years.

Electricity Report
- One year of electricity usage (the report must include monthly kWh)

Rent Roll
- Tenant name, contact number, rent amount for each apt
- Rent receipts or notarized statement from tenant of rent amount

Proof of Income
- Add all rental income to total household income

Preliminary Agreement
- Complete Preliminary Agreement (Form #6)

Building Assessment Qualification (BAQ) Fees
As per NYS HCR PPM sub section 4.05 the following fee structure is to cover the cost of the energy audit, which takes place after program eligibility has been established.

- Landlords who occupy the residence of 1-4 family homes, and meet the program qualifications have zero contribution. (The BAQ fee is waived for property owners of small family homes (1-4 units), who reside in the property to be weatherized and they themselves meet the program guidelines as well as at least 50% of the tenants residing at the property with 3-4 units.)

- Landlords with 1-2 family homes who do not live at the property or do not meet the program guidelines: the initial investment fee is $500.

- Landlords with 3-4 family homes who do not live at the property or do not meet the program guidelines: the initial investment fee is $1,000.

If applicable, please include a check or money order made payable to:
SPRC INC., Weatherization Assistance Program
Categorical Eligibility

A household is categorically-eligible for WAP assistance if they are receiving any one of the following:

**Supplemental Security Income (SSI Living Alone)**
Acceptable documentation: Current year award letter.

**Public Assistance**
Acceptable documentation: Current year award letter.

**Food Stamps**
Acceptable documentation: Current year award letter or copy of Electronic Benefit Transfer (EBT) card with a current debit purchase receipt.

** HEAP - Regular Benefits**
Acceptable documentation: Current year award letter.

*Note: If you don’t receive any of the above, please continue reading below.*
Income Eligibility

When an applicant is NOT categorically eligible, eligibility for WAP assistance must be determined on the basis of household income.

Household income is defined as total gross income from all working family members 18 and over such as the following:

**Social Security, Social Security Disability, Veterans Survivors Benefit**

Acceptable documentation: Current year award letter.

**Current Employment**

Acceptable documentation: most recent four weeks of paystubs or letter from employer.

* Income exclusion: Any household member over the age of 18 and currently employed and enrolled in an institution of higher education (at least 12 credits) will be excluded in determining the household eligibility, but included in household count.

**Self-Employment**

Acceptable documentation: Notarized statement of gross income, business records for 3 months prior to date of application or IRS form or income from previous year.

**Unemployment**

Acceptable documentation: Current year award letter.
Income Eligibility Limits
Below are the current WAP income eligibility limits. Changed annually.

<table>
<thead>
<tr>
<th>Household Size</th>
<th>Monthly Income</th>
<th>Annual Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$2,729</td>
<td>$32,748</td>
</tr>
<tr>
<td>2</td>
<td>$3,569</td>
<td>$42,828</td>
</tr>
<tr>
<td>3</td>
<td>$4,409</td>
<td>$52,908</td>
</tr>
<tr>
<td>4</td>
<td>$5,249</td>
<td>$62,988</td>
</tr>
<tr>
<td>5</td>
<td>$6,088</td>
<td>$73,056</td>
</tr>
<tr>
<td>6</td>
<td>$6,928</td>
<td>$83,136</td>
</tr>
<tr>
<td>7</td>
<td>$7,086</td>
<td>$85,032</td>
</tr>
<tr>
<td>8</td>
<td>$7,772</td>
<td>$93,260</td>
</tr>
<tr>
<td>9</td>
<td>$8,558</td>
<td>$102,700</td>
</tr>
<tr>
<td>10</td>
<td>$9,345</td>
<td>$112,140</td>
</tr>
</tbody>
</table>

*each additional person per household $9,440
NEIGHBORHOOD HOUSING SERVICES OF BROOKLYN, CDC

PRESENTS

RESOURCES FOR HOMEOWNERS

NHS BROOKLYN
COMMUNITY DEVELOPMENT CORPORATION, INC

Building Communities. Transforming Lives.
MISSION OF NHS BROOKLYN

• Neighborhood Housing Services of Brooklyn CDC, Inc. is a nonprofit housing organization that initiates, develops, and maintains programs designed to create affordable, decent, and safe housing and communities. Our plan is to:

• Renovate, repair, developer, and preserve housing in Brooklyn New York, and surrounding areas in conjunction with City, State, and federal government agencies and programs.

• Encourage the preservation and growth of healthy, stable, and diverse neighborhoods in Brooklyn, NY.

• Provide economic empowerment by offering opportunities in financial literacy training, job development and business development.
ABOUT US

- NHS Brooklyn, began in 1982, then called Neighborhood Housing Services of East Flatbush, as a part of a campaign called “Bank on Brooklyn.”

- Office location: East Flatbush 2806 Church Ave. (bet. Nostrand & Rogers Aves.), BK, NY 11226. (Temporarily closed for in-person visits)


- 718-469-4679 * nhsbrooklyn.org

(Our office is closed for in-person visits. We are conducting one-on-one counseling over the phone and virtual seminars.)
• Service Area includes East Flatbush, Canarsie, East New York, Crown Heights, Coney Island, Brownsville, Flatlands, Flatbush, to name a few.
MAJOR SERVICES

• First Time Homebuying
• Homeowner Services
• Tenant Services
RESOURCES FOR HOMEOWNERS

• Foreclosure Intervention
• Refinance/Mortgage Review
• Home Repair
• Homeowner Insurance Counseling
• Landlord Training
• Home Maintenance Training
• Seminars/Forums for Homeowners
• Financial Capability
HOMEOWNER INSURANCE SERVICES

- Offer free workshops on understanding your homeowner policy
- Provides one-on-one policy review including homeowner policy and flood insurance
- Resource for homeowners looking for a homeowner and flood policy.
HOME REPAIR LOANS & GRANTS

- NHSBROOKLYN provides financing, through NHSNYC, for minor or major home repairs.
- Provides grants, when available, for home repairs to low-income homeowners.
AHC (Affordable Housing Corp.) Grant

- Emergency & Moderate Repairs
- Forgivable Loan for up to $20K
- 1-4 family homes (no mix use)
- Must be owner-occupied
- Up to 80% of AMI

Income Requirement:
Up to 80% of Average Median Income (AMI)

<table>
<thead>
<tr>
<th>Family Size</th>
<th>Maximum Household Income (80% AMI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$63,700</td>
</tr>
<tr>
<td>2</td>
<td>$72,800</td>
</tr>
<tr>
<td>3</td>
<td>$81,900</td>
</tr>
<tr>
<td>4</td>
<td>$90,950</td>
</tr>
<tr>
<td>5</td>
<td>$98,250</td>
</tr>
<tr>
<td>6</td>
<td>$105,550</td>
</tr>
<tr>
<td>7</td>
<td>$112,800</td>
</tr>
<tr>
<td>8</td>
<td>$120,100</td>
</tr>
</tbody>
</table>
Home Repair Loans & Grants Cont.

Home Help for Heroes (HHH)

Income Requirement:
Up to 120% of Average Median Income (AMI)

<table>
<thead>
<tr>
<th>Family Size</th>
<th>Maximum Household Income (120% AMI) *</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$100,320</td>
</tr>
<tr>
<td>2</td>
<td>$114,600</td>
</tr>
<tr>
<td>3</td>
<td>$128,880</td>
</tr>
<tr>
<td>4</td>
<td>$143,160</td>
</tr>
<tr>
<td>5</td>
<td>$154,680</td>
</tr>
<tr>
<td>6</td>
<td>$166,080</td>
</tr>
<tr>
<td>7</td>
<td>$177,600</td>
</tr>
</tbody>
</table>

Home Help for Heroes:
• Veteran
• Lives in Brooklyn
• Tenant (Landlord must approve repairs) or Homeowner (Must be owner occupied)
• Up to $20000 in repairs
• Disabled (Not necessarily in combat, frailty due to advanced age accepted.)
• Income limits apply (120% AMI)
Home Repair Loans & Grants Cont.
Affordable Housing Corporation (AHC) Home Repair Grant

AHC Home Repair Grant:
• Homeowner who lives in Brooklyn
• Property must be owner occupied
• Up to $20000 in repairs
• Repairs must address damages, deteriorating conditions, pointing, plumbing, boiler repair, lead abatement, disabled accessibility, and electrical etc.
• Be current on Mortgage and Property taxes
• Homeowner Insurance up to date
• Can’t have $15000 or more in liquid assets
• Income limits apply (112% Household AMI). See chart to the right.

Income Requirement:
Up to 112% of Average Median Income (AMI)

<table>
<thead>
<tr>
<th>Family Size</th>
<th>Maximum Household Income (112% AMI) *</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$83,664</td>
</tr>
<tr>
<td>2</td>
<td>$95,648</td>
</tr>
<tr>
<td>3</td>
<td>$107,632</td>
</tr>
<tr>
<td>4</td>
<td>$119,504</td>
</tr>
<tr>
<td>5</td>
<td>$129,136</td>
</tr>
</tbody>
</table>
The HomeFix program provides a comprehensive place-based approach to addressing homeowner repair needs. The New York City Department of Housing and Preservation Development (HPD) program provides access to affordable low- or no-interest and potentially forgivable loans for home repairs to eligible owners of one- to four-family homes in the five boroughs.

**Maximum loan amount per unit:**
1 unit: $60,000
2 units: $90,000
3 units: $120,000
4 units: $150,000

- 1-4 units, home must be owner-occupied (270 days of the year). Condos and coops are not eligible.
- Must live in NYC.
- Can’t own a 2nd home within a 100-mile radius of NYC.
- Meet income guidelines. 165% of AMI. See chart to the right.

<table>
<thead>
<tr>
<th>Family Size</th>
<th>Maximum Household Income (165% AMI) *</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$154,110</td>
</tr>
<tr>
<td>2</td>
<td>$176,220</td>
</tr>
<tr>
<td>3</td>
<td>$198,165</td>
</tr>
<tr>
<td>4</td>
<td>$220,110</td>
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<tr>
<td>5</td>
<td>$237,765</td>
</tr>
<tr>
<td>6</td>
<td>$255,420</td>
</tr>
<tr>
<td>7</td>
<td>$290,565</td>
</tr>
</tbody>
</table>

To apply, call **646-786-0888**
Parodneck Repayment Loan Fund

Provides low-interest (3%) repayment loans that can be used to cover the costs of home improvements. This loan is repaid monthly over a ten-year period. The loan is payable in full if the house is sold or ownership is transferred, if the borrower moves out, or upon death of the borrower. A processing fee (10% of the construction amount), a $250 legal fee, and a $1,200 engineering fee are added to the loan amount at loan closing.

The Parodneck Foundation Revolving Loan Fund:

Provides low-interest (0-6%) repayment loans for repairs or for payment of real estate taxes, mortgage arrears and other professional services (related to the senior's home) such as legal and architectural fees, all on a case-by-case basis. Generally, loans do not exceed $10,000. A 5% processing fee is charged for this loan.
Home Repair Loans & Grants Cont.

Parodneck Loans & Grants

For More info:
https://www.parodneckfoundation.org/schap/application/
LANDLORD TRAINING
MONTHLY EDUCATION PROGRAM
OWNERS OF 2 TO 5 UNITS

• Best practices
• NYC Regulations
• Fair Housing Act
• Landlord Responsibilities
• Property Insurance

10% discount to existing landlords. Class fee is $100.
First Time Homebuying Services/Counseling

- Free Homebuying Seminars
- Homebuyer Education Courses
- One-on-One Counseling
- Downpayment & Closing Cost Assistance
- Affordable Mortgage Programs
Tenant Support Services

- Housing Connect
- Tenant Rights
- Review Leases
- SCRIE (Senior Citizen Rent Increase Exemption & DRIE (Disable Rent Increase Exemption))
- Succession Rights
- Financial Capability
RESOURCES

• Property owners of three or more units and owners of a 1-2 non-owner-occupied units must register with HPD property registration system by September 1. For more info, go to https://a806-pros.nyc.gov/PROS/mdRInternet.html

• To sign up for free virtual seminars such as the following: Wednesday August 24, 6pm, Foreclosure Prevention & Mortgage Update; Wednesday September 7, 6pm, Flood Insurance: Who Needs It is Changing; Tuesday September 20, 6pm, Emergency & Disaster Preparedness. Go to nhsbrooklyn.org under Upcoming Events.
THANK YOU!

Tyrone McDonald, Government & Community Relations Manger.

Neighborhood Housing Services of Brooklyn, CDC.
718-469-4679. For info. on upcoming events:
www.nhsbrooklyn.org
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
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.
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)

Image credit: New York Times

www.barriosolar.com
646-820-1301
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

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

• Scan:
WEBINAR
Clean Heat and Solar for Low-and-Moderate Income Households

Thanks for your participation

Visit us at
HeyBrooklyn.org

Martha Sickles: msickles40@gmail.com
908-328-3045