Do the Math: Financing Decarbonization in Existing Multifamily Housing

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Northeast Sustainable Energy Association (NESEA)
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Do The Math: Financing Decarbonization in Existing Multifamily Housing

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CLAIRE KRAMER MILLS – FEDERAL RESERVE BANK OF NEW YORK
ROBERT RIGGS – COMMUNITY PRESERVATION CORPORATION
1. Introduction: why **decarbonizing affordable housing** is important

2. Our collaboration

3. National overview

4. New York’s climate goals and market

5. Digging into the **numbers**: a case study

6. The path forward: **solutions and resources**
WHY DECARBONIZING AFFORDABLE HOUSING IS IMPORTANT
BUILDINGS ARE A KEY SOURCE OF EMISSIONS

Buildings account for 30% of emissions statewide and 67% of emissions in New York City.
MILLIONS OF HOUSING UNITS WILL NEED TO TRANSITION

To reach full electrification, millions of units across all housing types will need to switch to electric heating
Number of units by housing type and electric versus non-electric heating in New York State
INVESTMENTS IN AFFORDABLE HOUSING ARE NECESSARY TO ACHIEVE GOALS

New York State Housing Stock and Energy Usage

<table>
<thead>
<tr>
<th>Ownership status (%)</th>
<th>Overall</th>
<th>NYC</th>
<th>Non-NYC</th>
<th>LMI</th>
<th>Non-LMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renter-occupied/renting household</td>
<td>46% (3.40%)</td>
<td>67% (2.14)</td>
<td>30% (1.26)</td>
<td>63% (2.27)</td>
<td>31% (1.18)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Building type</th>
<th>Overall</th>
<th>NYC</th>
<th>Non-NYC</th>
<th>LMI</th>
<th>Non-LMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single family</td>
<td>47% (3.94)</td>
<td>16% (0.57)</td>
<td>70% (3.47)</td>
<td>34% (1.22)</td>
<td>59% (2.24)</td>
</tr>
<tr>
<td>2 to 4 units</td>
<td>17% (1.42)</td>
<td>22% (0.78)</td>
<td>13% (0.64)</td>
<td>22% (0.79)</td>
<td>14% (0.53)</td>
</tr>
<tr>
<td>Multifamily (5+ units)</td>
<td>34% (2.81)</td>
<td>61% (2.16)</td>
<td>13% (0.65)</td>
<td>41% (1.48)</td>
<td>26% (0.99)</td>
</tr>
<tr>
<td>Other</td>
<td>2% (0.19)</td>
<td>0.2% (0.00)</td>
<td>4% (0.19)</td>
<td>3% (0.11)</td>
<td>1% (0.03)</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Heating fuel</th>
<th>Overall</th>
<th>NYC</th>
<th>Non-NYC</th>
<th>LMI</th>
<th>Non-LMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility gas</td>
<td>59% (4.40)</td>
<td>65% (2.08)</td>
<td>55% (2.32)</td>
<td>56% (2.32)</td>
<td>58% (2.32)</td>
</tr>
<tr>
<td>Fuel oil and propane</td>
<td>24% (1.77)</td>
<td>18% (0.57)</td>
<td>28% (1.20)</td>
<td>21% (1.20)</td>
<td>21% (1.20)</td>
</tr>
<tr>
<td>Electricitya</td>
<td>13% (0.93)</td>
<td>13% (0.41)</td>
<td>12% (0.51)</td>
<td>22% (0.51)</td>
<td>18% (0.51)</td>
</tr>
<tr>
<td>Other</td>
<td>4% (0.32)</td>
<td>4% (0.13)</td>
<td>5% (0.19)</td>
<td>2% (0.19)</td>
<td>3% (0.19)</td>
</tr>
</tbody>
</table>
THE TRANSITION REQUIRES A MULTI-STAKEHOLDER APPROACH
NATIONAL OVERVIEW
A GROWING NUMBER OF STATES HAVE SET CLEAN ENERGY GOALS

Source: S&P Global Platts, National Conference of State Legislatures, ERCOT, CalISO, other associated sources for individual states and territories
Climate technology in the U.S. saw over $56 billion in investment between 2020 and 2021.

U.S. has $369 billion for climate and clean energy provisions to curb the country’s carbon emissions by roughly 40% by 2030.

- **$1 billion:** Green Energy Retrofit Program (HUD)
- **$26 billion:** Greenhouse Gas Emissions (EPA)
- **ITC expansions** (IRS)
- **$60 billion:** Energy Justice Initiatives
- **$27 billion:** Clean Energy Accelerator (DOE)
- **$30 billion:** Grant Programs for advanced Clean Energy Transition
CLIMATE LAWS AND NEW YORK MARKET
# LEGISLATION

<table>
<thead>
<tr>
<th>April 2019</th>
<th>New York City</th>
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<tbody>
<tr>
<td><strong>Climate Mobilization Act</strong> (&quot;CMA&quot;)</td>
<td></td>
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<tr>
<td>- Includes Local Law 97 (&quot;LL97&quot;): requires buildings larger than 25,000 sf to meet greenhouse gas emissions limits starting in 2024</td>
<td></td>
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<tr>
<td>- Part of NYC’s effort to reduce greenhouse gases by 80% by 2050</td>
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<tr>
<td>- Expected to create a $20 billion retrofit market in New York City and support 26,700 green jobs by 2030</td>
<td></td>
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<thead>
<tr>
<th>July 2019</th>
<th>New York State</th>
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<tbody>
<tr>
<td><strong>Climate Leadership and Community Protection Act</strong> (&quot;CLCPA&quot;)</td>
<td></td>
</tr>
<tr>
<td>- Requires select NYS buildings to reduce greenhouse gas emissions by 40% by 2030 and no less than 85% by 2050</td>
<td></td>
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<tr>
<td>- 40% of spending on retrofitting and climate compliance measures to be directed toward disadvantaged communities</td>
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<tr>
<th>August 2022</th>
<th>U.S.</th>
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<tbody>
<tr>
<td><strong>Inflation Reduction Act</strong> (&quot;The IRA&quot;)</td>
<td></td>
</tr>
<tr>
<td>- Goal of 40% emissions reductions by 2030</td>
<td></td>
</tr>
<tr>
<td>- Provides over $360 billion towards energy security and climate change initiatives</td>
<td></td>
</tr>
<tr>
<td>- Funding through direct grants and tax credits to preserve affordable housing, reduce energy costs, increase community resilience</td>
<td></td>
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Emissions limits go into effect

Buildings more than 35% rent regulated, HDFC cooperatives, and project-based HUD must demonstrate emissions are below 2030 limits OR Prescriptive Energy Conservation Measures have been implemented

First compliance report required by May 1st, 2025. Required May 1st of each year thereafter

Building code updated to include stricter performance regulations

Buildings up to 35% rent regulated may delay compliance until 2026

Emissions limits become more stringent

Buildings up to 35% rent regulated must meet limits

Emissions limits become more stringent

Income-restricted housing categories previously exempt must begin meeting emission limits

Goal of 80% reduction of greenhouse gas emissions

Source: Sustainable Affordable Housing, 2022
NEW YORK REGULATORY DRIVERS

**NYS – CLCPA**
(under development)
- Emissions-free new construction (2025/2028)
- Phase out of fossil heating appliances (2030/2035)
- Building performance standards (2030)
- Benchmarking / Building Labeling (ASAP)
- Cap and Invest
- Governor Hochul’s Two Million Climate Friendly Homes initiative

**NYC**
(enacted)
- Local Law 97 building emissions caps (2024 – stepping down 2030, 2035, 2040...)
- Emissions-free new construction (2024/2027)

**Financial Institution Regulations**
- DFS Proposed Guidance re: Climate Risks
- SEC proposed climate disclosure regulations
BARRIERS & OPPORTUNITIES

**Barriers**

- **Customer Demand:**
  - Absences of regulation in most markets
  - Familiar lending products (mortgages) do not require decarbonization
  - Low consumer awareness and technologies seen as optional/unnecessary expense
- **Cost:**
  - Many decarbonization technologies are not cost effective, need incentives today
  - Inflationary pressures (construction costs, mortgage rate, etc.)
  - No Savings to pay-back loan with decarbonization measures
  - Expensive up-front assessments and design expertise up-front
- **Awareness/Expertise/Capacity:**
  - Lack of regulation/policy caused low capacity/expertise
  - No model to serve smaller scale LMI projects that the larger Solar/ESCO market serves
  - Retail lenders lack expertise in underwriting new technologies
  - Consumers do not understand benefits

**Opportunities**

- Climate regulation initiating increasing demand
- Influx of climate capital combined with project level TA funding
- New market emerging around climate focused on investing in LI-DAC communities
- New workforce opportunities – (i.e. heat pump elite contractor trainings)
DIGGING INTO THE NUMBERS: A CASE STUDY
CASE STUDY INSIGHTS

Owners are ultimate decision-makers
Decisions made at building level
LL97 fines balanced against
  Cost of implementation
  Impact on operating costs
  Availability and terms of debt financing
  Availability of incentives
RESOURCES AND OPPORTUNITIES
STRATEGIES TO COMPLY WITH LOCAL CLIMATE LAWS

Buildings mid-cycle financing

- Determine Current Emissions
- Evaluate Scope & Pricing for:
  - Prescriptive Pathway
  - 2030 Cap
- Select Pathway
- Apply for applicable grant programs
- Access Replacement Reserves
- Consider Financing for Balance

Building planning a major renovation

- Determine Current Emissions
- “Future proof” by designing scope to meet long-term emissions cap
- Apply for clean energy subsidies offered by housing agencies
- Take Advantage of Federal Tax credits & stack incentives into deal
# Sample of Mid-Cycle Resources

<table>
<thead>
<tr>
<th>Program</th>
<th>Administrator</th>
<th>Scope</th>
<th>Eligibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean Heat</td>
<td>Con Ed</td>
<td>Air Source/Ground Source Heat Pumps</td>
<td>Open to multifamily, single family, commercial</td>
</tr>
<tr>
<td>AMEEP</td>
<td>Con Ed/National Grid</td>
<td>Energy Efficiency Measures</td>
<td>Affordable Multifamily only</td>
</tr>
<tr>
<td>Prescriptive Measure Pilot</td>
<td>HPD/Con Ed</td>
<td>Prescriptive Pathway Option #1 Scope</td>
<td>HPD Properties subject to prescriptive pathway and is 25-75k sq ft</td>
</tr>
<tr>
<td>Low Carbon Capital Planning</td>
<td>NYSERDA FlexTech</td>
<td>Energy Audits &amp; Electrification Studies</td>
<td>All multifamily eligible</td>
</tr>
<tr>
<td>Climate Friendly Homes Fund</td>
<td>CPC/HCR *delivered</td>
<td>High performance, all-electric equipment</td>
<td>Existing affordable multifamily 5-50 units</td>
</tr>
</tbody>
</table>
## SAMPLE OF DEVELOPMENT RESOURCES

<table>
<thead>
<tr>
<th>Program</th>
<th>Administrator</th>
<th>Scope</th>
<th>Eligibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean Energy Initiatives (CEI)</td>
<td>HCR 4% and 9% programs</td>
<td>Electrification of heating, dhw, advanced envelope</td>
<td>HCR rehabs and group up new construction</td>
</tr>
<tr>
<td>HPD Future Housing Initiative (FHI)</td>
<td>HPD Development Pipeline</td>
<td>High-performance all-electric new projects that meet HPD “Reach” goals</td>
<td>HPD New Construction</td>
</tr>
<tr>
<td>HPD Electrification Pilot</td>
<td>HPD Preservation Pipeline</td>
<td>Electrification and efficiency scopes</td>
<td>HPD Rehabs</td>
</tr>
<tr>
<td>Specialty Lenders</td>
<td>IPC, NYCEEC, NYGB CDF</td>
<td>Flexible – green lending capital (solar, efficiency, decarb, etc.)</td>
<td>Rehabs or mid-cycle and new construction</td>
</tr>
</tbody>
</table>
IRA RESOURCE OPPORTUNITIES FOR AFFORDABLE HOUSING

Solar
- Tax credit doubled from 26% to 50%
  - Additional 10% credit in low-income communities, or
  - 20% increase for a qualified low-income project
- Tax credit for battery storage
- Nonprofits can take a cash payment in lieu of the tax credit

Energy
- Treasury: Energy Efficient Home Credit is a tax credit stackable with LIHTC; (45L) incentive per unit for 3rd party certification 179D) Incentive for site EUI reduction
- DOE: HOMES Rebate Program: $4.3 billion through State energy offices
- DOE: High Efficiency Home rebate Program: $4.5 billion as grants through State Energy Offices
- HUD: Green & Resilient Retrofit Program (GRRP) $1B to owners of HUD-subsidized properties

Greenhouse Gas Reduction Fund (GGRF)
- EPA: $27 billion and $15 billion targeted to low-income and disadvantaged communities
- Administered by EPA through State Energy Offices

Source: HSA
THANK YOU

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Robert Riggs  rriggs@communityp.com