

# AEG New York 21Q2 Stakeholder Challenge on Grid Modernization

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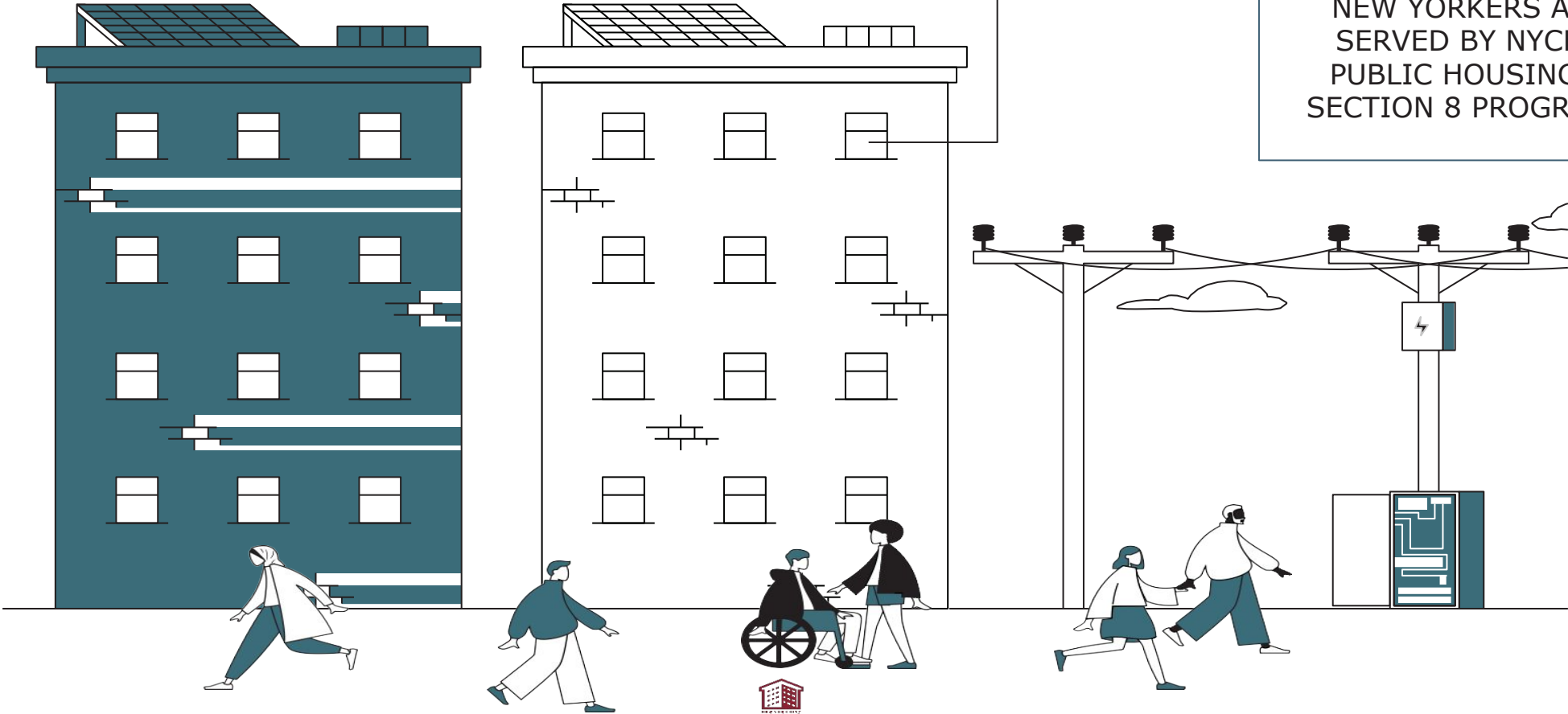
# NYCHA Intro

**335**  
INDIVIDUAL  
DEVELOPMENTS

**2,212**  
RESIDENTIAL  
BUILDINGS

**177,611**  
PUBLIC HOUSING APARTMENTS

**1 in 15**  
NEW YORKERS ARE  
SERVED BY NYCHA  
PUBLIC HOUSING &  
SECTION 8 PROGRAMS



# The Challenge: 80x50

## NYS

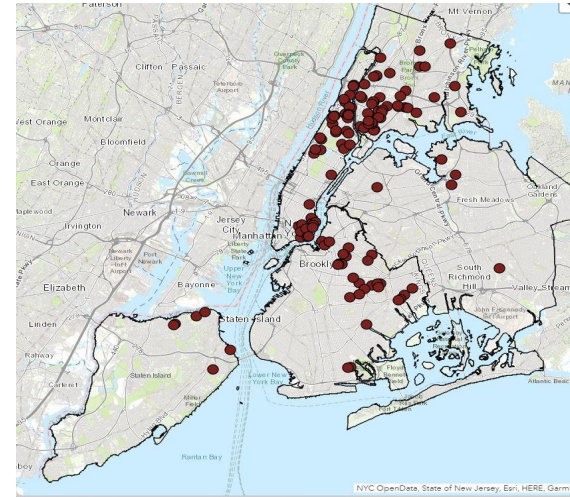
- New York State Climate Act set targets to reduce carbon emissions by 85% by 2050 and produce zero-emission electricity by 2040.

## NYC LL97

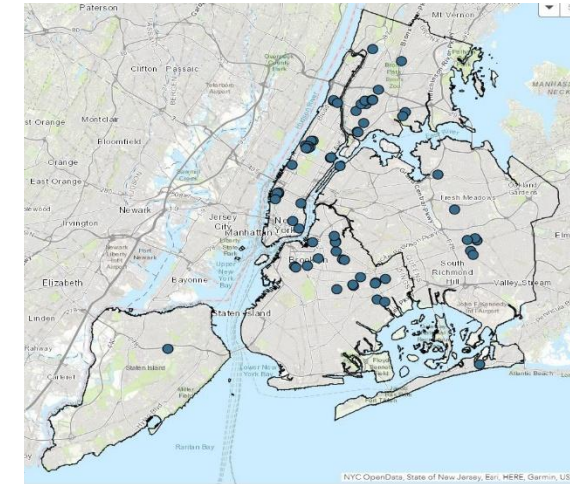
- New York City's Local Law 97 of 2019 (LL97) introduced an aggressive schedule for carbon reductions from buildings. LL97 committed NYCHA to reduce greenhouse gas emissions by 40% by 2030 and 80% by 2050 from a 2005 baseline.

## Beneficial Electrification

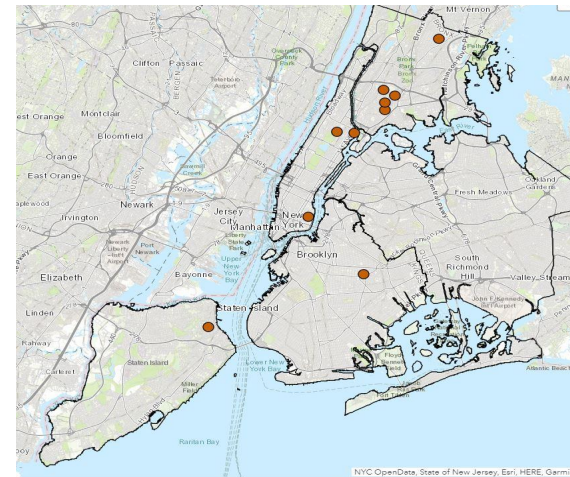
- To align with required reductions, NYCHA must switch all future heating systems to distributed hydronic heat or high-efficiency electric heat pumps. NYCHA also seeks to decouple and electrify domestic hot water production as soon as practicable.



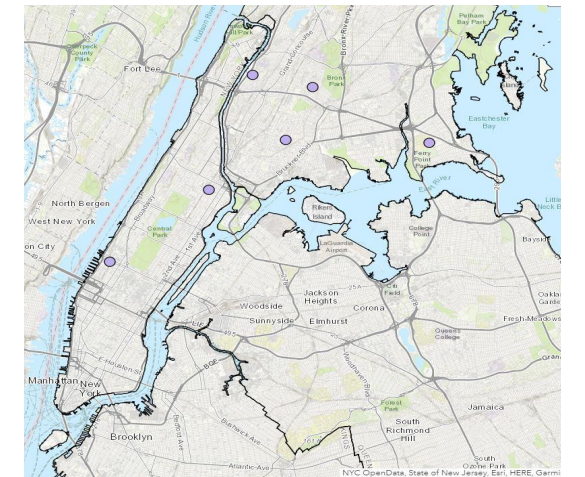
Low-temperature PTHPs (127)



Hydronic Conversions (63)



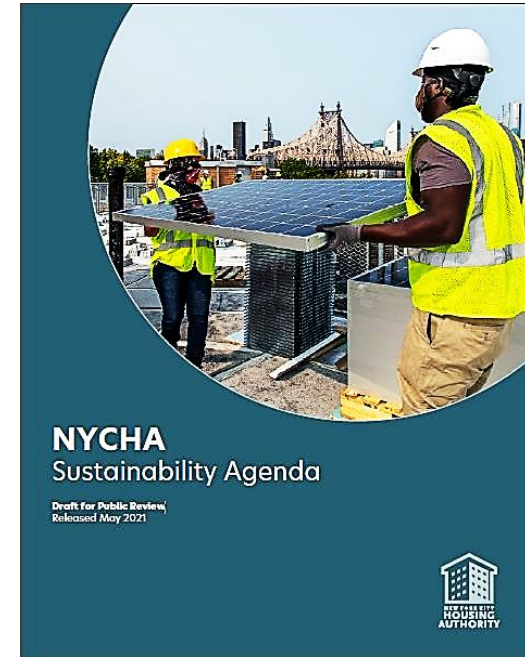
Geothermal Heat Pumps (10)



Combined Heat and Power (CHP) (6)

# Next Steps

- Release 2021 Sustainability Agenda and NYCHA's public-facing decarbonization map during upcoming Climate Week
- Bring to market a cold climate window heat pump (with NYSERDA/NYPA)



- Advocate for and secure funding for building envelope, heating, cooling and DHW upgrades
- Establish a "Clean Energy Academy"
- Where NYCHA is targeting electrification options, make sure the grid is able to support the new loads

# Benefits & Consequences

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## Benefits

- The moment is right – NYCHA's systems are in desperate need of recapitalization – we get to do it right
- Proposed technologies have the potential to include Environmental Justice Communities in career and job opportunities
- NYCHA makes up about 3% of NYC's carbon emissions – sizable reductions

## Consequences

- Cooling as a “right”
- NYCHA size can create an anchor market for new technologies

# Final

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- ***To achieve NY's 2050 Carbon & Equity goals, the most critical obstacle for NYCHA to overcome is electric grid capacity.***