



**NYSERDA**

# **NYSERDA Multifamily program updates – NESEA pre-conference webinar**

**September 28, 2023**



# Agenda

## > **Introductions**

- Will Xia, NYSERDA
- Ben Milbank, Ecosystem
- Ion Simonides, BrightPower

## > **About NYSERDA**

## > **New and notable about our programs**

## > **Case studies from our partners**

- Ben – Low Carbon Pathways
- Ion – Flex Tech Multifamily

# About NYSERDA

## **Our Vision**

New York is a global climate leader building a healthier future with thriving communities; homes and business powered by clean energy; and economic opportunities accessible to all New Yorkers.

## **Our Mission**

Advance clean energy innovation and investments to combat climate change, improving the health, resiliency, and prosperity of New Yorkers and delivering benefits equitably to all.

## **Our Promise**

NYSERDA provides resources, expertise, and objective information so New Yorkers can make confident, informed energy decisions.

# New and notable about our programs

	Description	What is this?
<b>New</b>	Community Decarbonization Fund	Financing partnerships
	NYSERDA SEFI decarbonization fund	Financing partnerships
	NYCHA Tech Challenge – 120 V Induction Stoves	Technical design challenge funds
<b>Updates to existing programs</b>	Empire Building Challenge Round 3 – MF focus	Project design and installation funds
	Thermal Energy Networks	Project design funds
	Low Carbon Pathways and Capital Planning	Project design and installation funds
	Flex Tech Multifamily	Project design funds

# INTRODUCING THE COMMUNITY DECARBONIZATION FUND (“CDF”)

CDF will provide **\$250MM in concessionary capital** to community lenders experienced in funding clean energy projects and improvements that benefit underserved communities

- The CDF will seek to fund a diverse and representative group of CDFIs and specialty lenders to **support energy finance programs with emphasis on building electrification and affordable housing**
- CDF Applicants with **emerging clean energy finance programs** will be encouraged to apply, particularly those serving persistent poverty areas, communities of color, and other traditionally marginalized communities
- The CDF is designed to be **additive and complementary with existing lending programs** serving disadvantaged community markets or those we know will be launched

## EXAMPLES OF ELIGIBLE TECHNOLOGIES

- Building electrification and supporting measures, examples including but not limited to:
  - Heating and Cooling Load Reduction
    - Weatherization
    - Windows
    - Heat recovery ventilation
  - Clean Heating Technologies<sup>2</sup>
    - Air Source Heat Pumps
    - Water Source Heat Pumps
    - Ground Source Heat Pumps
    - District thermal interconnection
- Electric Vehicle Infrastructure (including charging stations)
- Thermal and Electric Energy Storage
- Rooftop Solar when combined with one or more of the above listed Eligible Technologies

## INDICATIVE TERMS

- **Amount:** Minimum of \$2M and up to \$25M per lender
- **Availability Period:** 24 months from closing date
- **Term:** 12 years after the closing date
- **Interest Rate:** 1.50% per annum fixed interest rate



# PON 5456

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- NYSERDA recently launched a program offering ([PON 5456](#)) to support DOE LPO's 1703 loan guarantee with an innovation waiver if NYSERDA (or other [State Energy Financing Institutions SEFI](#)) are in the capital stack.
- Support firms applying to the LPO 1703 Program for the innovation waiver and secure an LPO loan guarantee or direct funding capital facility
- This gives firms the ability to source the cheapest cost of capital for decarbonization impact
- This initial program is for \$20mm and are looking for proposals from firms actively pursuing an LPO 1703 support approach
- **NYSERDA will host a webinar about this solicitation on October 10, 2023, at 10:00 a.m. EST. [Interested parties can register here](#). This webinar will be recorded and posted on the NYSERDA [website](#).**

# NYCHA Tech Challenge: 120V Induction Stove

## Plug-in-ready Induction Range

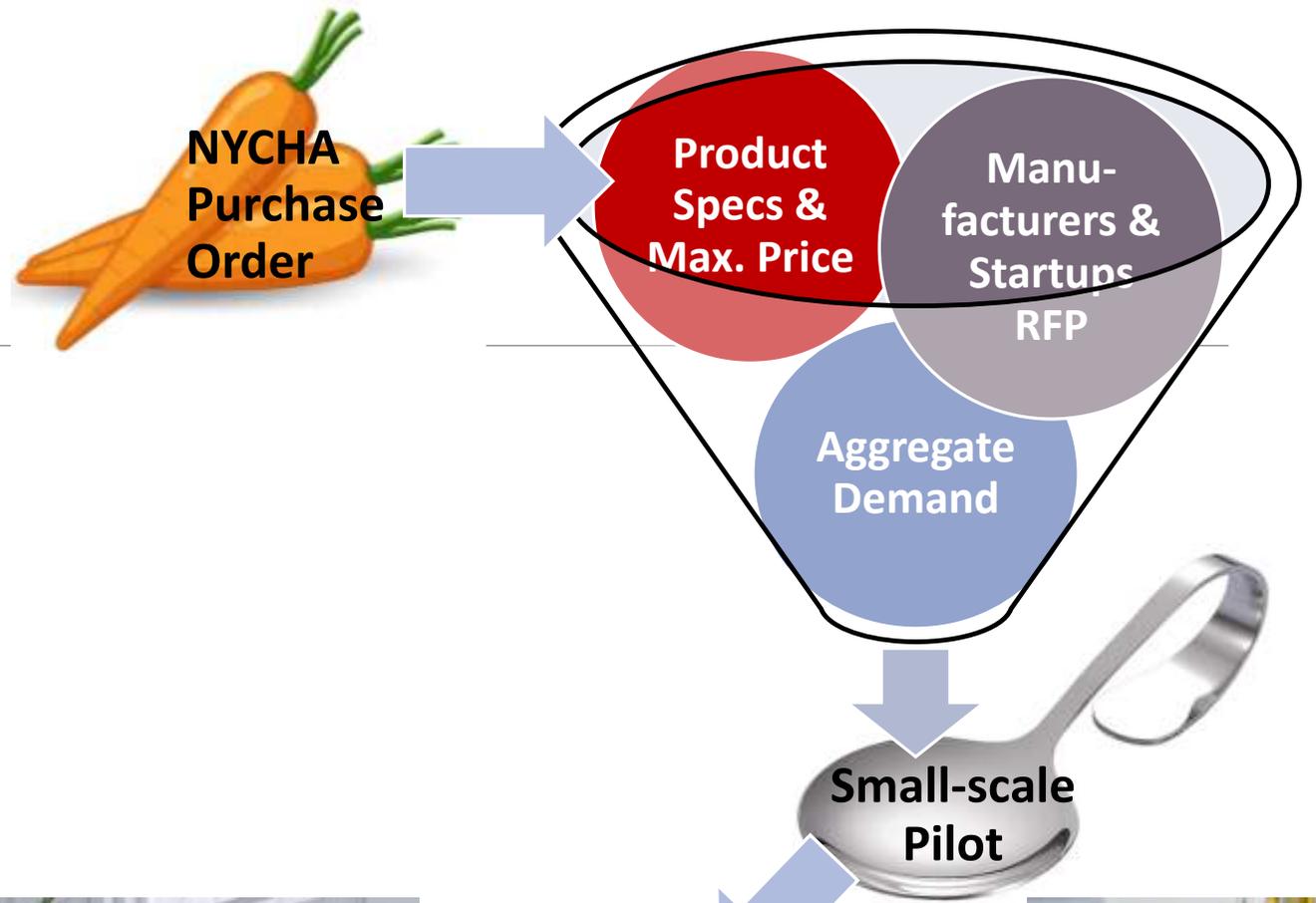
Manufacturer RFP to Launch October 2023

Min. P.O. of 10,000 units for product that enables cost-effective electrification

NYSERDA funds technical spec development and pilot

### PRODUCT:

- > Plugs into standard, 120V/20amp outlet
- > Easily installed by building staff
- > No electrical upgrades + avoid gas line repairs = \$\$Millions in savings
- > Equal or better cooking experience
- > No resident disruption + Indoor air quality benefits + new cookware



Enabling Product for Decarbonization





# Empire Building Challenge (Cohort 3: MF only)

## GOALS

- Accelerate **investment** in decarbonization.
- Enable **replication and scale** across New York's existing large commercial and multifamily building stock.
- Drive **innovation** and market **demand**.

**Applications due Nov. 16, 2023  
by 3pm.**

## FUNDING

- **Up to 100K** for Technical Assistance to develop a decarbonization roadmap and project concepts.
- If selected, partners will compete for **up to 3M** in project funding.

## RESOURCES

- **GUIDE: Planning for Resource Efficient Decarbonization**
- [Building Decarbonization Insights](#)
- [Strategic Decarbonization Assessment](#)

**NEW**

## Eligibility

- Multifamily only
- 50 units minimum
- No height requirement.
- Heat and DHW systems must be fueled by gas or oil.
- Apply as a team (Building Owner + Solution Provider)
- [Solicitation documents](#)

# NYSERDA Pilot Projects (PON 4614)

## Community Heat Pump Systems Pilot Program launched in Q1 2021

> 54 project sites awarded through Round 9 (some contracts still pending)

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- **48 Category A:** Feasibility (3 contracts pending)
- **11 Category B:** Design (5 contracts pending)
- **5 Category C:** Construction (3 contracts pending)

> Category D projects

- Market opportunities study
- Municipal charrettes
- "Project Champions" guidebook
- Outreach to LMI housing
- Aquifer Thermal Energy Storage (ATES) study

**Sites cover >2,200 buildings, ~100M SF conditioned space**

**50% upstate, 50% downstate**

**>40% located in a Disadvantaged Community**

**~33% of conditioned space is multi-family in NYC**

# Questions?

Please email  
[MultifamilyInfo@nyserda.ny.gov](mailto:MultifamilyInfo@nyserda.ny.gov) for  
additional questions or reach out to:

**Will Xia,**  
[William.Xia@nyserda.ny.gov](mailto:William.Xia@nyserda.ny.gov)

**Thank you!**

**Program  
Webpage**





# International Tailoring Company Building

## Case Study

Sep 28 2023



# • About Ecosystem

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- Integrated engineering & construction company specializing in turnkey decarbonization and energy efficiency projects exclusively in existing buildings.
- Developing and building multiple NYC decarbonization projects using incentive programs from NYSERDA and NYS Utilities.
- Committed to delivering the results our clients seek through contractual guarantees.

270  
PROJECTS

1,730  
BUILDINGS

WORTH  
\$1BN



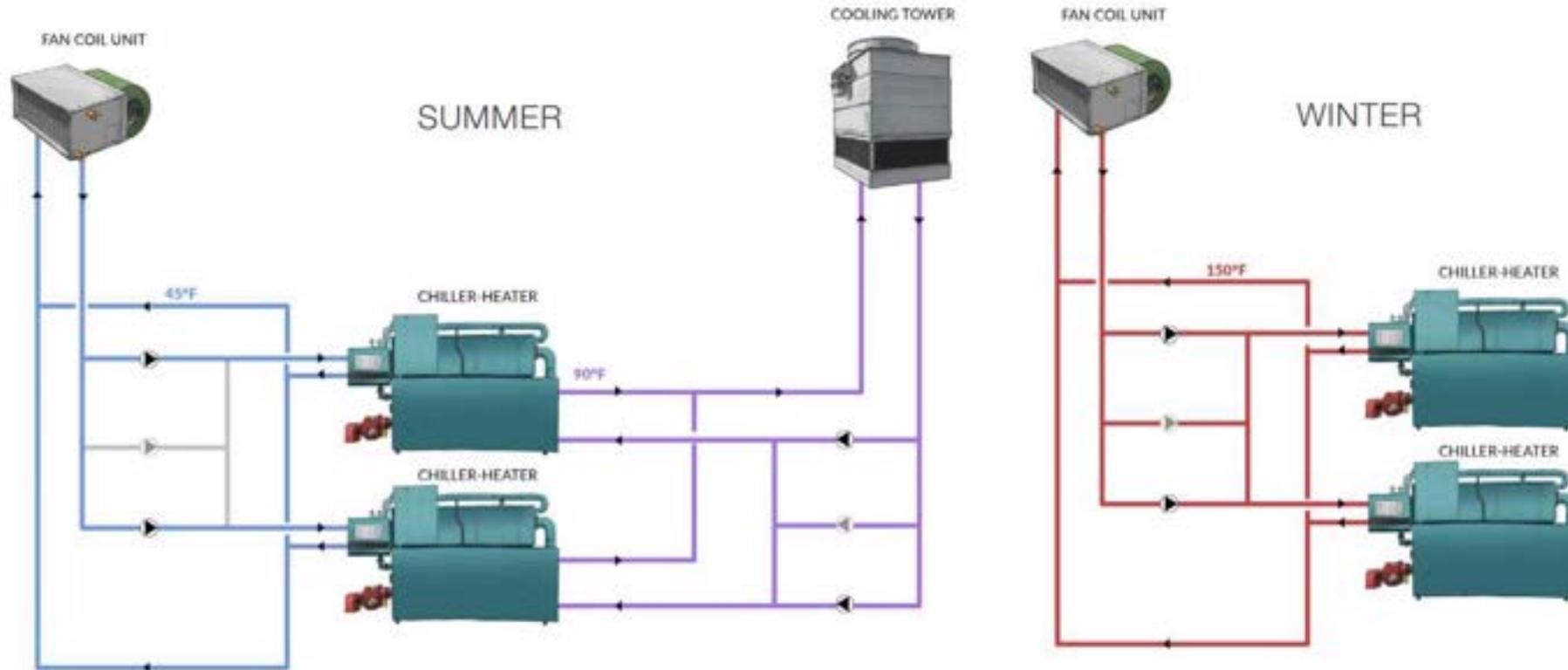
# International Tailoring Company Building

**156,000 sqft, 180-unit residential building in  
Manhattan**

- Mechanical equipment close to end of life
- Operationally complex system
- Comfort complaints due to switchover system
- Large LL97 fines



# • Existing System



- ▶ Individual apartment-based fan coils units
- ▶ Two-pipe hydronic system
- ▶ Gas-fired absorption chiller/boiler combo units

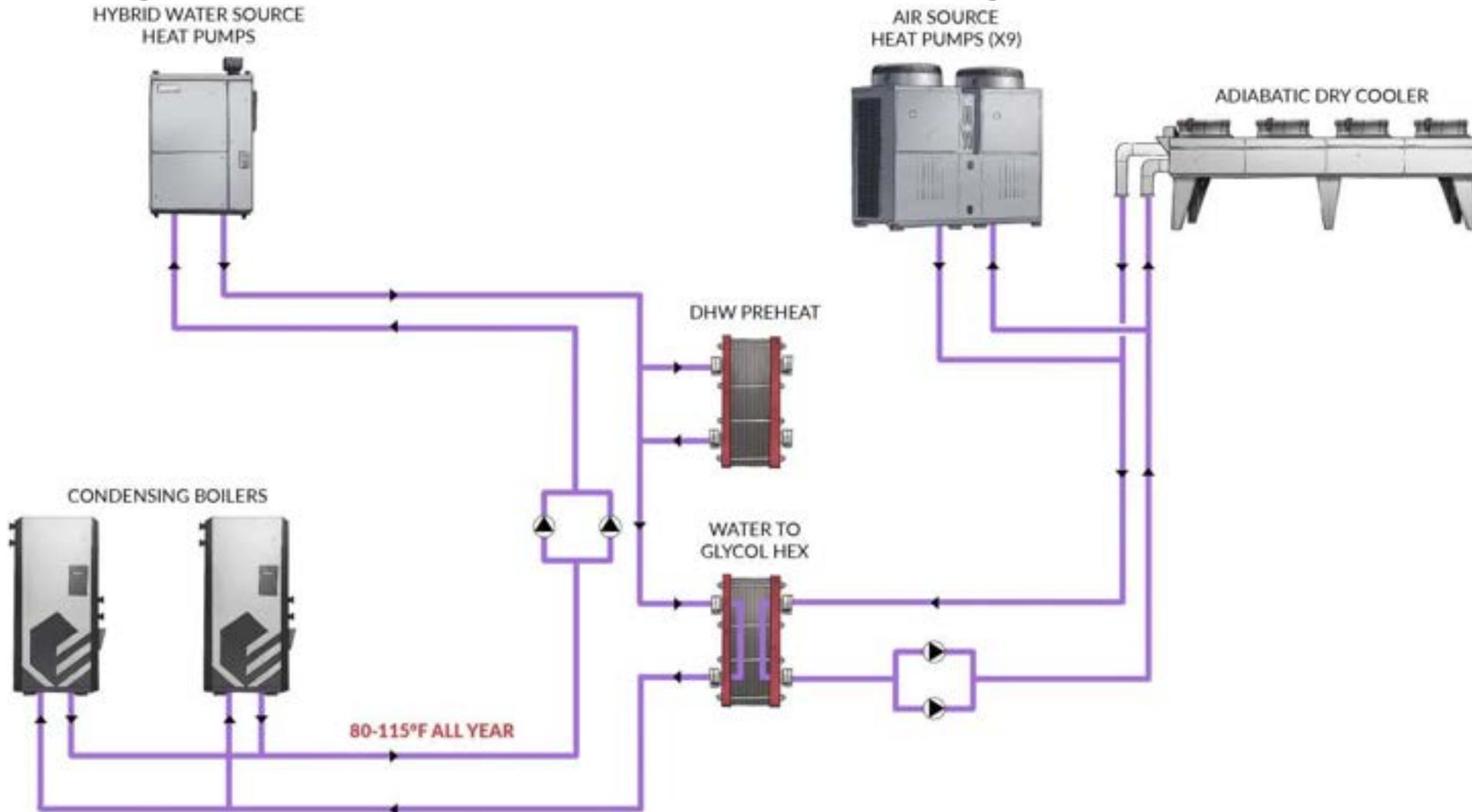
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# • Hybrid Electrification

- **Maximize GHG reduction while engineering around existing building constraints**

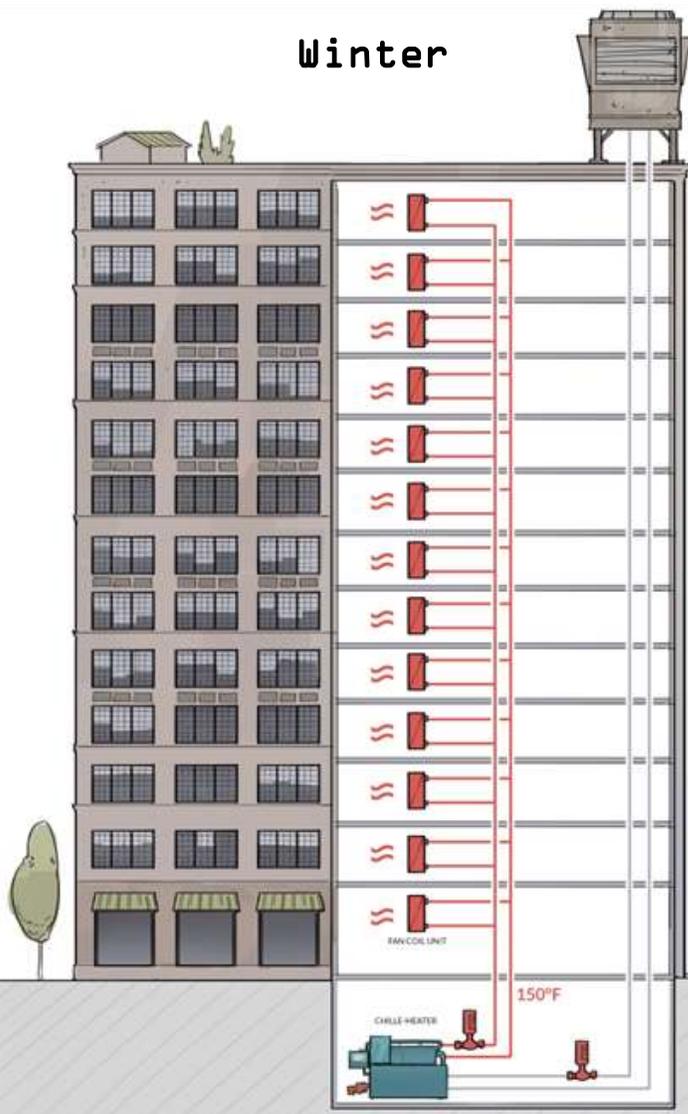


# • Hybrid Electrification System

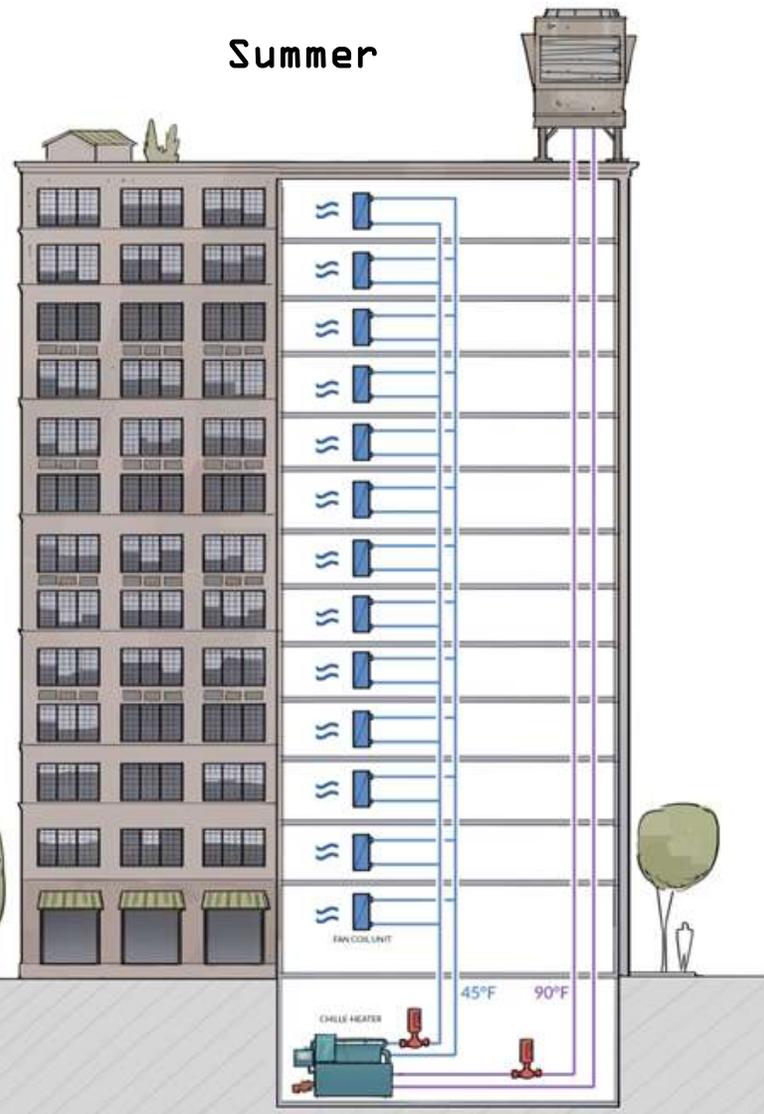


# Before

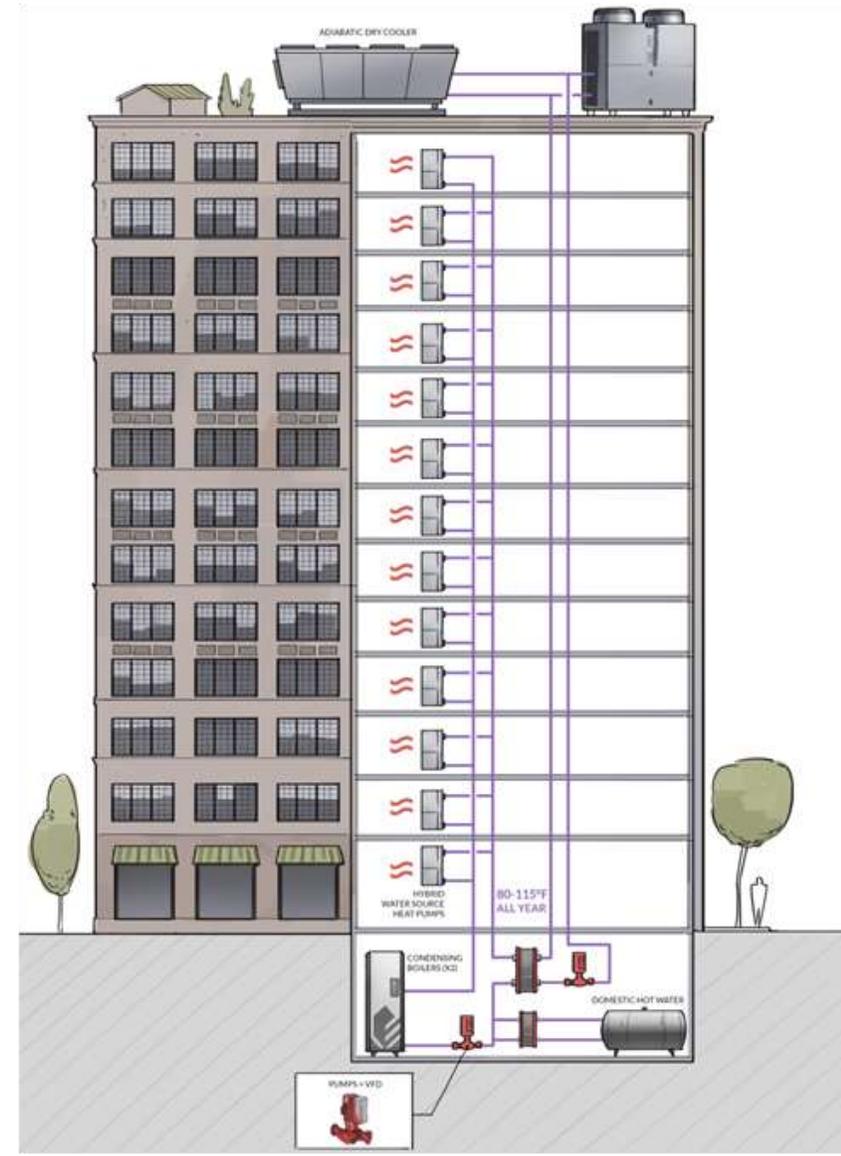
## Winter



## Summer



# After



# International Tailoring Company Building

## Outcomes

- Significant improved resident comfort
- On track for 57% reduction in energy usage
- Cooling system electrified while reducing total kWhs
- 80%+ reduction in on-site GHG emissions
- LL97 compliance to 2050
- Incentives enabled positive 20-year Life Cycle Cost



# International Tailoring Company Building

## Lessons Learned

- Value of proactive planning
- Focus on outcomes – a LL97 project can achieve much more than just carbon reductions
- Construction phasing can be the most challenging part of a project
- Compounded value in whole system decarbonization + energy efficiency
- Evaluating beyond just simple paybacks



# THANK YOU!

## **Ben Milbank**

Senior Project Development Engineer &  
Regional Manager Mid-Atlantic

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30  
years



ecosystem

A panoramic view of a city skyline at sunset. The sky is a mix of orange, yellow, and purple. The Empire State Building is prominent in the center. A dark blue semi-transparent banner covers the middle of the image, containing white and orange text.

# FlexTech/Low Carbon Capital Planning Case Study

**Bright Power**  
September 28, 2023

# Bright Power at a Glance

- Energy Engineers focused on reducing energy & water consumption and improving resident comfort for multifamily owners & operators
- Founded in 2004 in New York City
- Employs 100+ employees
- Experience
  - Benchmarking proprietary database includes 100,000+ buildings, 15,000+ properties
  - Performed 2,400+ energy audits
  - Completed 600+ energy efficiency retrofits

# NYSERDA FlexTech & Low Carbon Capital Planning

## Example Project - Phase 1: FlexTech Audit

- Co-op, Landmark building in the Bronx built in the 1960s with 20 stories and 450 units
- FlexTech ASHRAE Level 2 energy audit delivered in early 2022 with the 50% cost-share from NYSERDA
  - Audit met the compliance requirements of NYC Local Law 87
  - Local Law 97 fines avoided for 2024-2029, but significant in the 2030 compliance period
- Co-op Board wanted to further explore the various electrification options outlined in the audit

# NYSERDA FlexTech & Low Carbon Capital Planning

## Example Project - Phase 2: LCCP Electrification Study

- Completed the 1st draft of the study in May 2023
- Project received critical 75% cost-share from NYSERDA for the study
- In-depth investigation of the space heating & cooling and domestic hot water electrification options
  - Full electrification vs. Hybrid electrification scenarios
- Hybrid scenario gets the building into LL97 compliance until 2034
- Facing challenges with planned heat pump placement on garage roof

# Contact Us

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