

November 17, 2022

Affordable Housing and Energy Transition

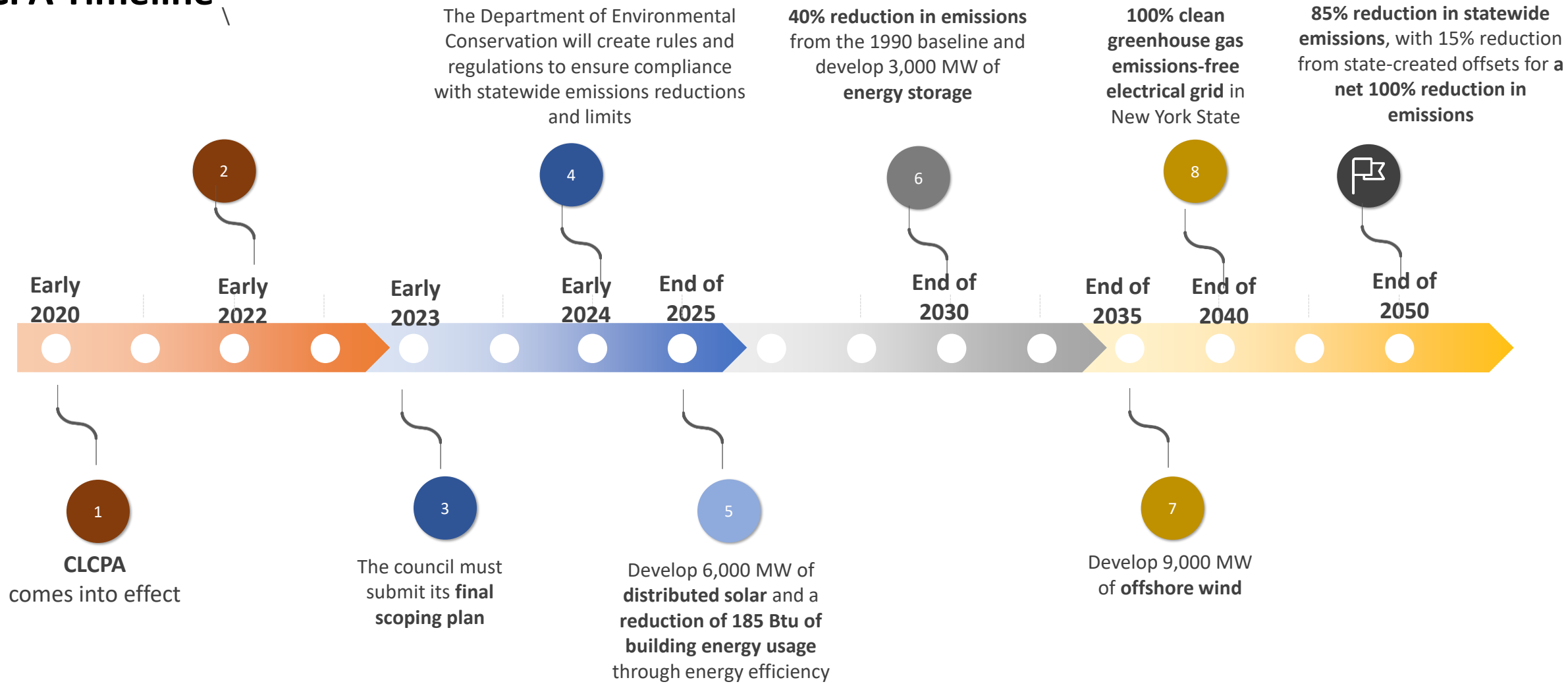
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Today's Agenda

- Why is **decarbonizing** affordable housing important?
- What are key **challenges and opportunities**?
- Digging into the **numbers**: a case study
- The path forward: **levers and solutions**
- Next Steps

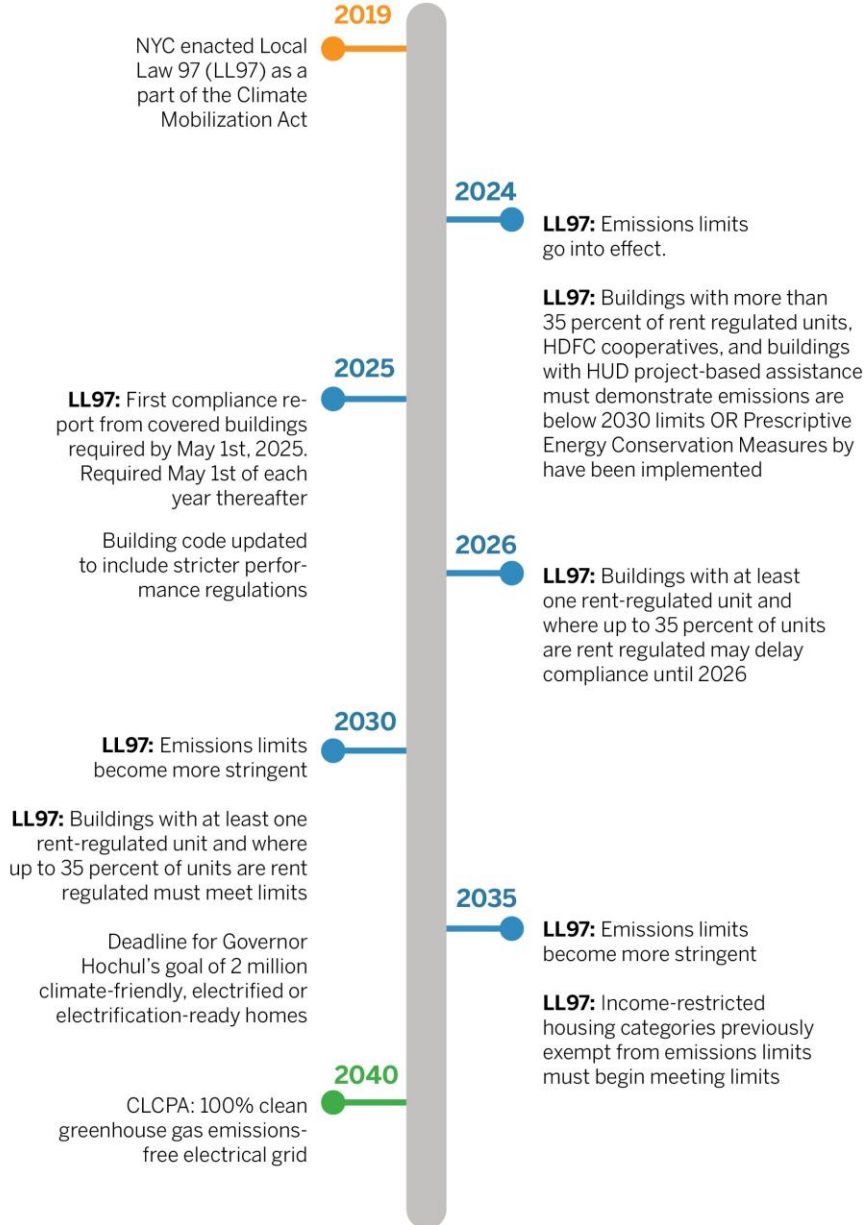
New York State and New York City have aggressive climate goals

CLCPA Timeline



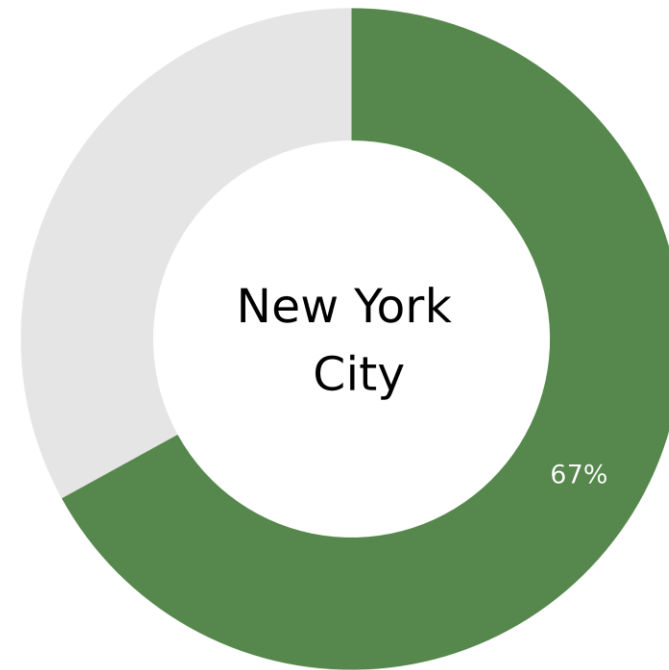
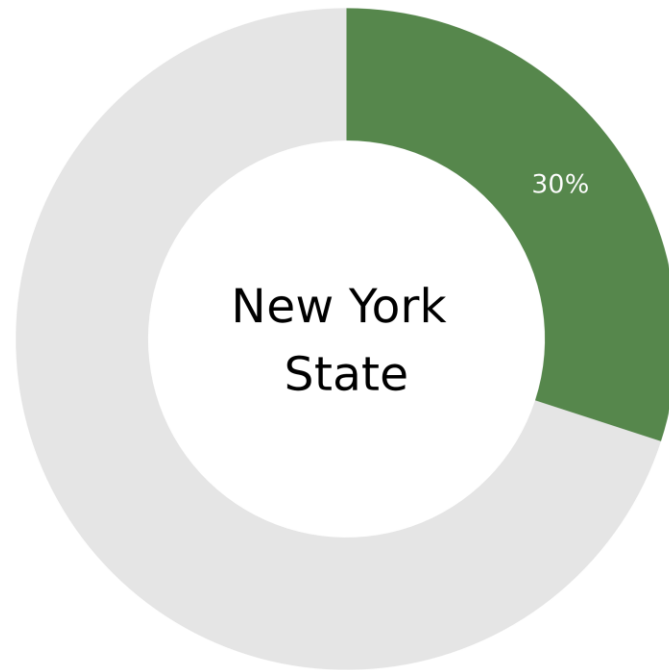
New York State and New York City have aggressive climate goals

Local Law 97 (LL97) Timeline



Buildings are a key source of emissions

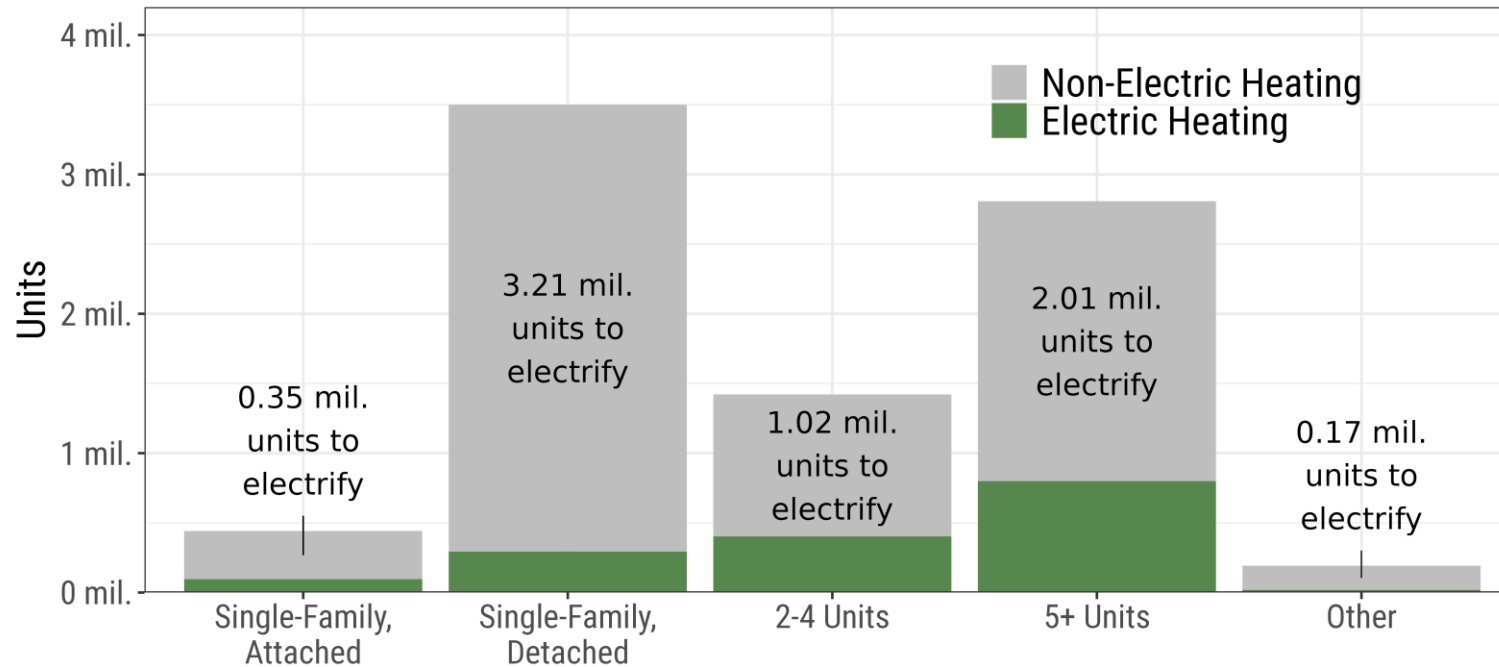
Buildings account for 30% of emissions statewide and 67% of emissions in New York City



Millions of housing units will need to electrify to meet climate goals

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



Sources: 2020 ACS, 2020 RECS

Investments in affordable housing are necessary to achieve state goals

New York State Housing Stock and Energy Usage

	Overall	NYC	Non-NYC	LMI	Non-LMI
Total occupied units/ households (millions)	7.4 (100%)	3.2 (43%)	4.2 (57%)	3.6 (49%)	3.8 (51%)
Ownership status (%)					
Renter-occupied/ renting household	46% (3.40 ^B)	67% (2.14)	30% (1.26)	63% ^C (2.27)	31% ^C (1.18)
Building type^D					
Single family	47% (3.94)	16% (0.57)	70% (3.47)	34% ^E (1.22)	59% (2.24)
2 to 4 units	17% (1.42)	22% (0.78)	13% (0.64)	22% (0.79)	14% (0.53)
Multifamily (5+ units)	34% (2.81)	61% (2.16)	13% (0.65)	41% (1.48)	26% (0.99)
Other	2% (0.19)	0.2% (0.00)	4% (0.19)	3% (0.11)	1% (0.03)
Heating fuel					
Utility gas	59% (4.40)	65% (2.08)	55% (2.32)	56% (2.08)	58% (2.14)
Fuel oil and propane	24% (1.77)	18% (0.57)	28% (1.20)	21% (0.79)	21% (0.79)
Electricity^G	13% (0.93)	13% (0.41)	12% (0.51)	22% (0.81)	18% (0.67)
Other	4% (0.32)	4% (0.13)	5% (0.19)	2% (0.07)	3% (0.11)

Four key challenges to achieving goals:

- 1) High **costs** of decarbonization and **access to capital**
- 2) Perceived project **risks** and **complexity**
- 3) Lack of clear **measurement** and **standards**
- 4) A **lack of awareness** and education among key stakeholders, including government, the finance industry, building owners, homeowners, renters, construction contractors, and installers

Case study

- 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

Takeaways: Case Study of LL97 Compliance

Levers that can make retrofits work:

1. **Reducing the cost** of new capital improvements through **incentives**
2. **Easing debt service with lower rates or longer amortizations**, which may require renegotiating the terms of the subordinate debt;
3. Reducing the impact on operating expenses through **efficiency measures, utility caps, or tax abatements** and/or;
4. Postponing until near the end of the useful life of existing equipment so that the building will deal only with the incremental cost

Work Group Recommendations

1. Reduce Costs
2. Reduce Risk and Complexity
3. Improve Measurement
4. Raise Awareness

Detailed Work Group Recommendations

Reduce Costs

- Adjusting underwriting, including pricing for risk reduction
- Providing tax incentives for early adopters, including through existing tax credit programs
- Leveraging policy and mission-motivated investments to increase supply of capital
- Simplifying process of obtaining mortgage holder consent
- Establishing loan loss reserves/credit enhancement mechanisms

Reduce Risk

- Leveraging government policy and regulation, e.g., expediting local approvals, aligning incentives, passing local building and energy codes.
- Aggregating evidence of improved cash flow
- Standardizing utility pricing and leveraging utility lending models
- Developing and Scaling Direct-to-Consumer Models

Improve Measurement

- Developing (or evolving existing) certification standards, including a common set of metrics, to cover decarbonized buildings
- Treating carbon emissions like a pollutant
- Creating easy-to-use and comprehensive building-level calculators and financial models for widespread use

Increase Awareness

- Launching awareness and education campaigns about the health and financial benefits of decarbonization

There are
dozens of
potential levers

Stakeholders	Recommendations
Federal/State Government	<ul style="list-style-type: none"> • Simplify and align incentive programs • Leverage tax credits (e.g. LIHTC, NMTC, brownfield) • Establish loan loss reserves and/or credit enhancement mechanisms • Require decarbonization of underlying assets as condition of sale for distressed loan portfolios • Treat carbon emissions as pollutant • Require disclosure of GHG emissions from lenders' loan portfolios • Provide CRA credit for investing in affordable decarbonized or decarbonizing buildings • Increase Section 8 base rents for decarbonized buildings • Layer Medicare/Medicaid funding into decarbonization investments in affordable buildings
Local Government	<p>For decarbonized buildings</p> <ul style="list-style-type: none"> • Create property tax abatement • Lower/remove taxes on increased value attributable to decarbonization • Increase FAR or density limits • Standardize permitting and approval • Provide tax relief to utilities to lower prices charged to decarbonized affordable properties
Appraisers	<ul style="list-style-type: none"> • Value decarbonized buildings more highly, like assessors do
Financial Sector	<ul style="list-style-type: none"> • First lenders grant consent to PACE financing, become PACE lenders, or create supplemental products • Adjust first mortgage lenders' documents to acknowledge regulatory requirement to electrify and explicitly note they will provide consent and/or additional debt • Create scorecard for lenders based on carbon impact of loans

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Stakeholders	Recommendations
Health Care Institutions	<ul style="list-style-type: none"> Invest in affordable decarbonized housing as a social determinant of health
Industry	<ul style="list-style-type: none"> Develop (or evolve existing) certification standards, including a common set of metrics to cover decarbonized buildings Launch awareness and education campaign, including engaging advertising agencies to produce clean home campaigns Aggregate evidence of increased cash flow and real estate value of decarbonized buildings Tap into the carbon offset market Develop direct-to-consumer models
Real Estate Tax Assessors	<ul style="list-style-type: none"> Do not overtax electrified properties because of perceived higher values
Underwriters	<p>For loans to decarbonized projects</p> <ul style="list-style-type: none"> Implement “sustainability-linked pricing” or pricing for risk reduction Offer longer amortization schedules Create transparency about the costs of noncompliance in underwriting Bring forward increased future value of carbon-neutral buildings Implement reasonable commodity cost escalation assumptions
Utilities	<ul style="list-style-type: none"> Reduce variability of rates across localities within the same region Reduce utility penalties/surge pricing Implement utility-funded, tariff-based financing models

Levers are intended to increase demand for decarbonization

FIGURE 4

As the market deepens and regulations come into effect, costs will fall and demand will rise

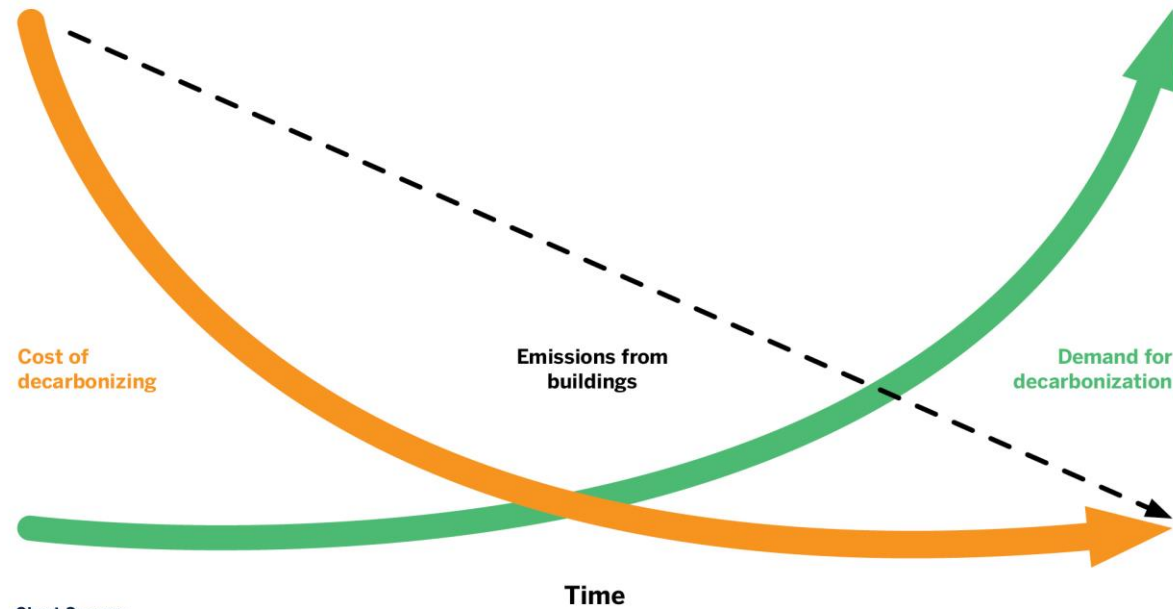
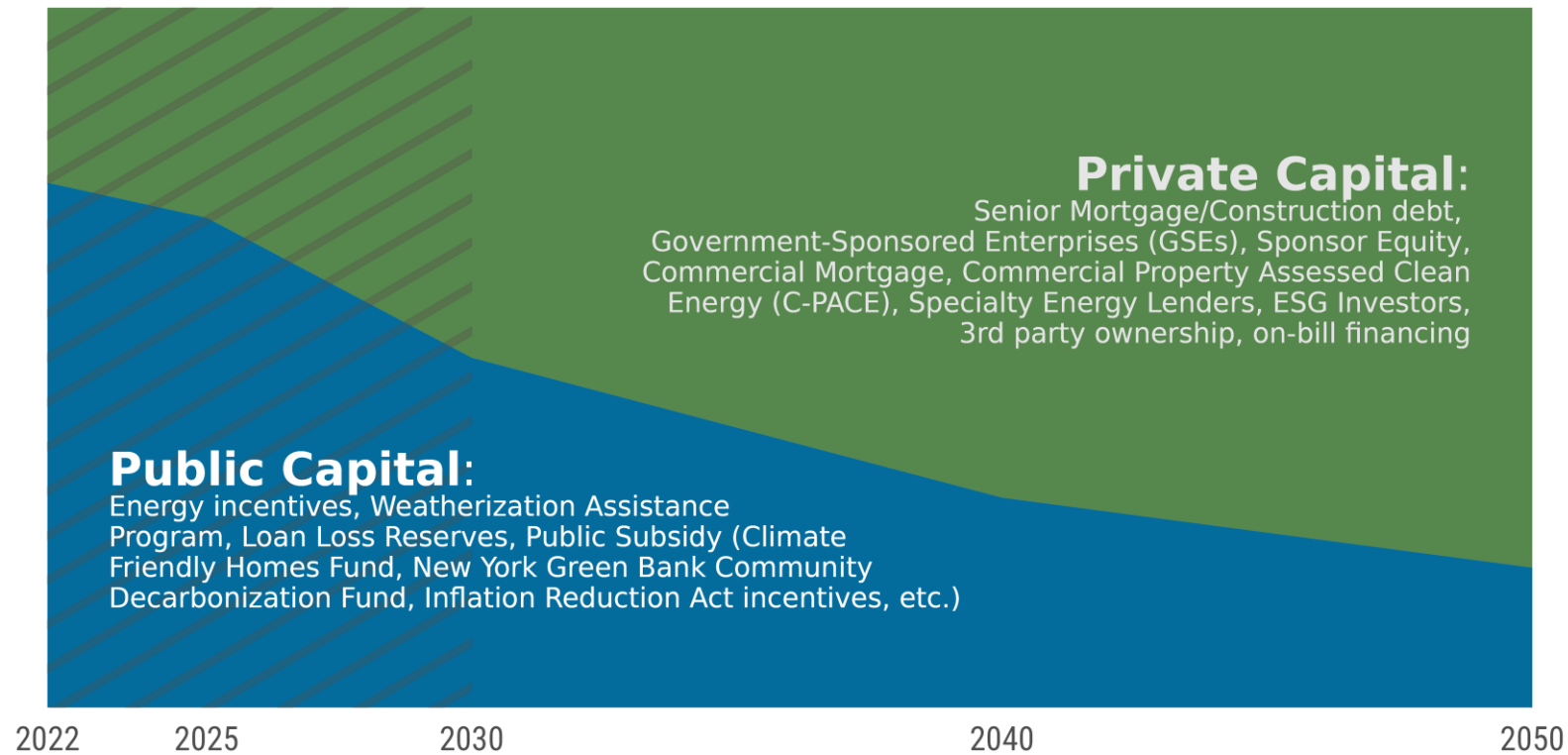


Chart Source:
Urban Green Council

To meet climate goals, decarbonization must become business as usual

Potential capital stack to achieve climate goals for affordable housing

Public funding and support will be important for early adopters (shaded area); **private** financing will be critical for a new business as usual.



We need to identify which levers can yield greatest impact

- Levers
 1. Public sector and policy levers
 2. Private sector levers
 3. Education, information, and awareness building
- Survey link: <https://forms.office.com/g/5Ps7zANDS7>
 - Note: expressing interest in a work group does **not** commit you to it, we will follow up

Q&A

