city of **yes** 

city of solar
city of health
city of energy
city of carbon neutrality
city of resilience





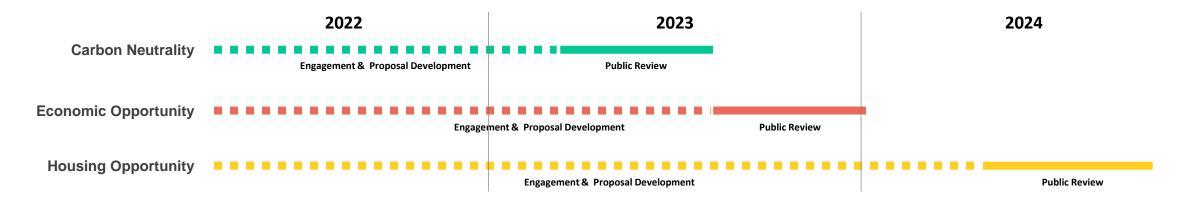




**for Economic Opportunity**Growing jobs and small businesses with more flexible zoning



for Housing Opportunity
Ensuring all neighborhoods are meeting the need for housing opportunities



Recap

## Why carbon?

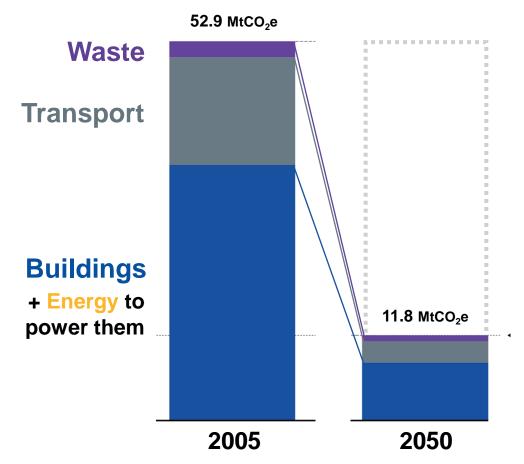
- We are in a climate emergency, caused by greenhouse gas emissions.
- Carbon dioxide (CO<sub>2</sub>) is the primary greenhouse gas (GHG) emitted through human activities 80% of US GHG emissions in 2019.
- CO<sub>2</sub> is largely produced through the burning of fossil fuels
- Paris Agreement aims to limit global warming to 2°C and avoid greater climate damage by curbing GHG



## What do we mean by a "carbon-neutral city"?

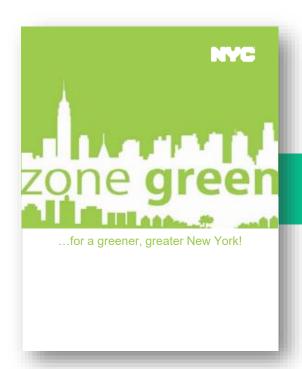
It's a city where we've...

- Reduced our energy needs (retrofit buildings to be efficient)
- 2. Cleaned the grid (decarbonize the source of electricity)
- 3. Electrified buildings + vehicles (all remaining energy needs are powered by the clean electric grid)



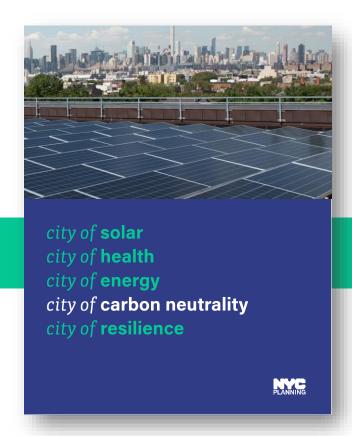
Necessary operational carbon reductions to meet 2050 goals, in millions of metric tons of carbon dioxide equivalent. Source: NYC's Roadmap to 80x50 Recap

### What has New York City already done?



**2012:** Designed to support elective, progressive experiments with "green building features"





**2023:** Respond to the climate crisis by removing zoning impediments to urgent retrofitting work, solar, energy storage, and EVs

March 2022

June 2022

October 2022

Engagement

Info Session 1

Urban Green convening
March 2023

April 2023

Info Session 2 Referral

Initial stakeholder outreach

Collaboration with advocates and practitioners

to date:

City of Yes Kickoff

Four open-to-the-public pre-referral info sessions

**Kick-off** 

100+ meetings with stakeholders

Two in-depth working sessions convened with Urban Green Council

## Where do we need to go? How can zoning help?

# Meeting the challenge of our climate crisis is a massive undertaking.

We've worked with our partner agencies, as well as dozens of non-profit and private-sector groups, to understand what they're working on – and how zoning can help support their efforts.



Inclusion here does not necessarily indicate endorsement.



## What we've learned: how zoning can support these efforts



#### Goal 1:

## Decarbonize our energy grid

by broadly allowing for distributed generation (wind + solar) as well as critically needed energy storage.



#### Goal 2:

## Decarbonize our building stock

by supporting the retrofitting of NYC's million-plus buildings to become energy-efficient and electrified.



#### Goal 3:

## Decarbonize our vehicles

by supporting the growth of EV adoption, biking, and e-mobility, by removing limits on where infrastructure can be placed.



#### Goal 4:

## Decarbonize our waste streams

by supporting other City efforts to grow composting and rainwater collection

## **Summary of proposal**



- 1. Rooftop solar: removing zoning impediments.
- 2. Solar parking canopies: remove zoning impediments to allow.
- Solar: ensure standalone generation is allowed
- 4. On-shore wind: add a new tool for the CPC to consider future applications
- 5. Energy storage (ESS):
  add new rules to allow gridsupporting ESS in a wide
  range of zoning districts



- 6. Electrification retrofits: expand rooftop and yard allowances to accommodate increased need for outdoor electrified equipment like heat pumps
- Building exterior retrofits: fix rules to ensure that the widest range of exterior retrofits are allowed.
- 8. Fix Zone Green:
  update and improve this floor
  area exemption to ensure it
  continues to promote betterthan-code performance.

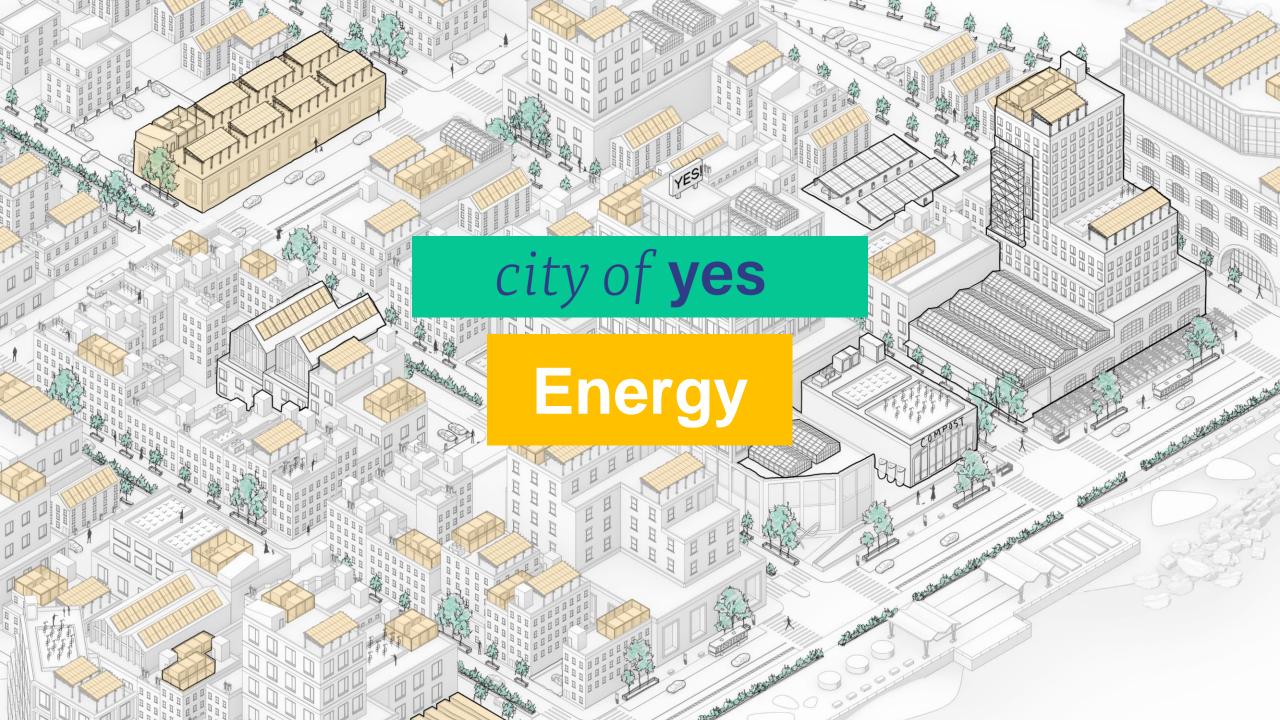


- Vehicle charging: expand allowance to all Commercial Districts
- 10. Charge-sharing: allow a % of residential spaces to be shared w/ the public
- 11. Parking flex: streamline car-sharing, car rental, and commercial parking rules
- 12. Automated parking: expand rules to encourage more automated facilities
- **13. Bike parking:** add rules for storage and charging



- 14. Porous paving: clarify language to ensure permeable paving is allowed.
- **15. Street Trees:** update rules to accommodate new raingarden prototypes
- 16. Organics: add new use regulations clarifying when composting and recycling are allowed.
- 17. Rooftop greenhouses: simplify the process to allow them as-of-right





### Decarbonize our energy grid

By 2040, the New York energy grid must be 100% renewably-based

see: 2019 NYS CLCPA

To meet demand, we need to generate energy everywhere; we've set a goal of 1000 MW of rooftop solar by 2030.

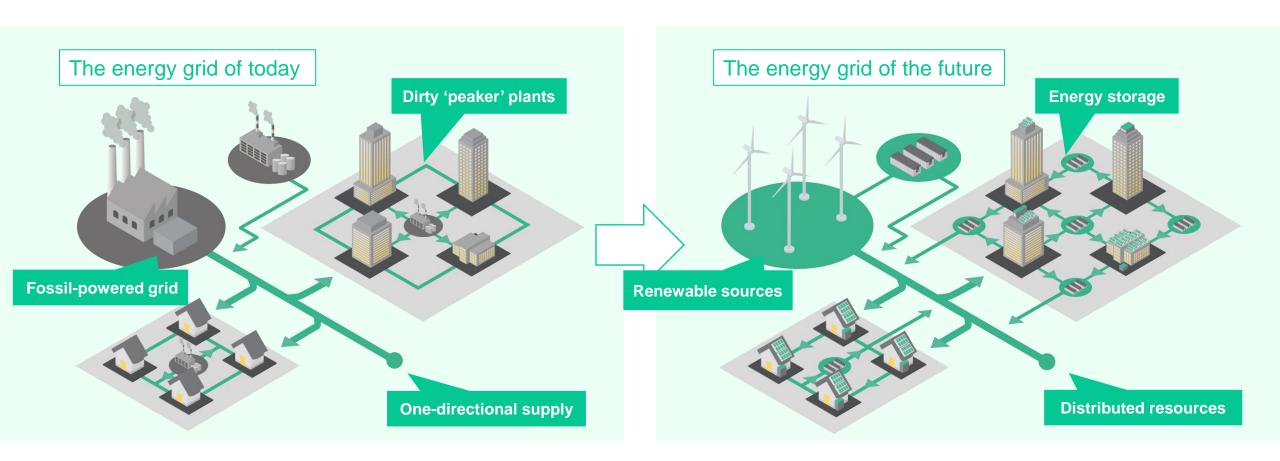
see: 2016 Climate Week NYC



To store clean energy, and respond to demand, gigawatts of local energy storage will be crucial.

see: 2022 State of the State

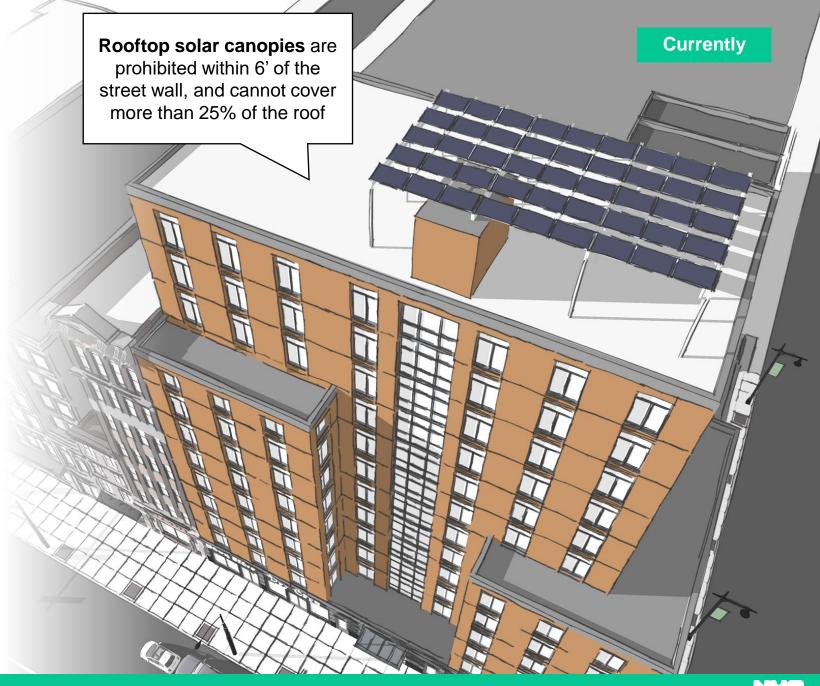
### Decarbonize our energy grid





# Solar on building rooftops (flat)

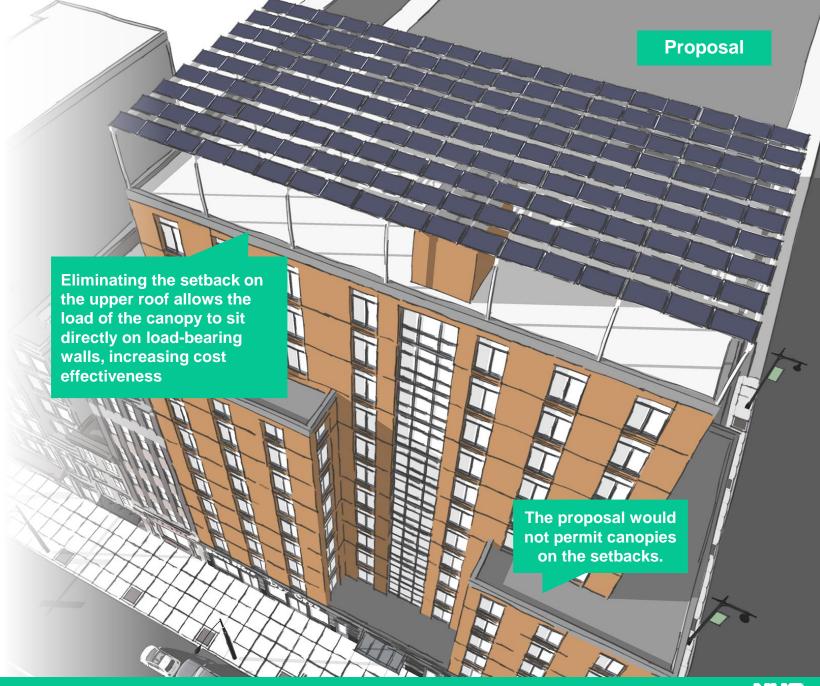
- Currently: Zoning allows solar panels to be added to flat roofs, above the height limit, up to 6' (R1-R5) or 15' (R6+, C, M). When elevated to these heights, a 25% maximum coverage, and 6' setback from the façade, also apply.
- Issue: These zoning rules curtail how much solar a home/building owner realistically can install, artificially limiting solar potential and making installations infeasible. (The 6' height in certain districts also conflicts with FDNY need for 9' of clear headroom.)
- Proposal: Remove coverage and setback requirements for rooftop solar, and apply a 15' maximum height limit to all flat-roof solar installations, regardless of district.





# Solar on building rooftops (flat)

- Currently: Zoning allows solar panels to be added to flat roofs, above the height limit, up to 6' (R1-R5) or 15' (R6+, C, M). When elevated to these heights, a 25% maximum coverage, and 6' setback from the façade, also apply.
- Issue: These zoning rules curtail how much solar a home/building owner realistically can install, artificially limiting solar potential and making installations infeasible. (The 6' height in certain districts also conflicts with FDNY need for 9' of clear headroom.)
- Proposal: Remove coverage and setback requirements for rooftop solar, and apply a 15' maximum height limit to all flat-roof solar installations, regardless of district.



### Solar on building rooftops (flat)

- **Currently:** Zoning allows solar panels to be added to flat roofs, above the height limit, up to 6' (R1-R5) or 15' (R6+, C, M). When elevated to these heights, a 25% maximum coverage, and 6' setback from the façade, also apply.
- Issue: These zoning rules curtail how much solar a home/building owner realistically can install, artificially limiting solar potential and making installations infeasible. (The 6' height in certain districts also conflicts with FDNY need for 9' of clear headroom.)
- **Proposal:** Remove coverage and setback requirements for rooftop solar, and apply a 15' maximum height limit to all flat-roof solar installations, regardless of district.



### Solar on building rooftops (flat)

- **Currently:** Zoning allows solar panels to be added to flat roofs, above the height limit, up to 6' (R1-R5) or 15' (R6+, C, M). When elevated to these heights, a 25% maximum coverage, and 6' setback from the façade, also apply.
- **Issue:** These zoning rules curtail how much solar a home/building owner realistically can install, artificially limiting solar potential and making installations infeasible. (The 6' height in certain districts also conflicts with FDNY need for 9' of clear headroom.)
- **Proposal:** Remove coverage and setback requirements for rooftop solar, and apply a 15' maximum height limit to all flat-roof solar installations, regardless of district.

LPC review would still be required in historic districts and for landmarked buildings.



### Solar on building rooftops (flat)

<b>Currently</b> for solar energy systems >4' in height, where above the zoning height limit:		
Height limit	6' (R1-R5) 15' (R6+, C, M)	
Coverage cap	25%	
Rooftop setback	6' from street wall	
Contextual setback	Not allowed	

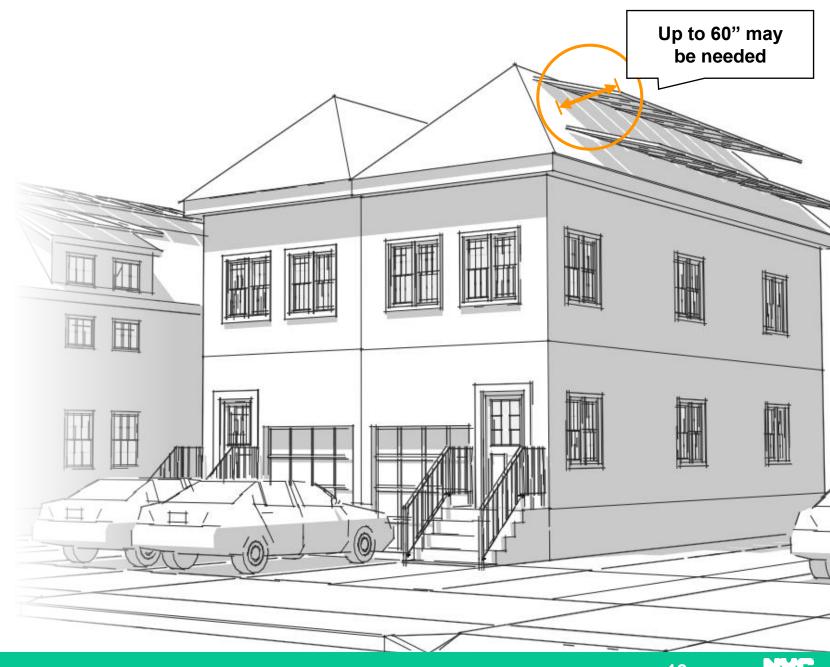
<b>Proposal</b> for solar energy systems, where above the zoning height limit:	
Height limit	15' (all districts)
Coverage cap	100%
Rooftop setback	O' from street wall
Contextual setback	Not allowed

New BSA special permit to increase height allowances if needed



# Solar on building rooftops (sloped)

- Currently: Zoning allows solar panels to be added to sloped roofs, above the height limit, up to a maximum of 18 inches.
- Issue: This requires panels to hug the roof, even on roofs with poor solar orientations. Without the ability to "tilt" the installation to catch more sun, the installation is infeasible.
- Proposal: Provide greater flexibility for rooftop solar on pitched roofs, by expanding the 18" allowance to 60".



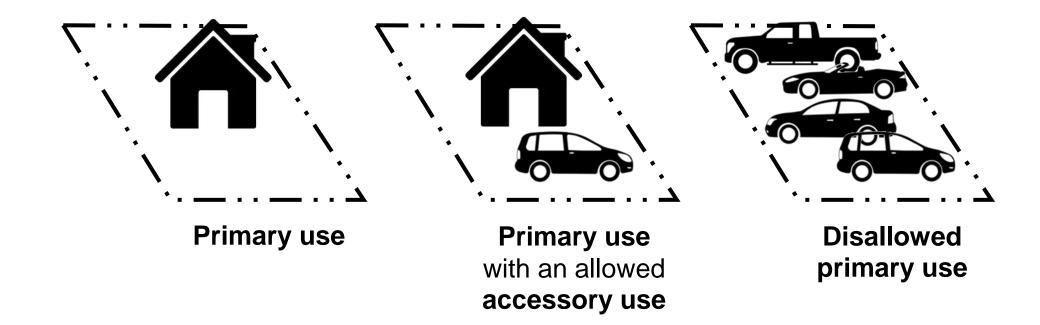
# Solar canopies over parking areas

- Currently: Zoning allows "accessory off-street parking spaces, open or enclosed" to obstruct a number of required open spaces, required front yards, required rear yards, etc.
- Issue: "Solar awnings/canopies" are not always permitted in the same areas as parking, preventing their installation.
- Proposal: Allow solar awnings / canopies (pictured at right) to cover parking areas by adding them as 'permitted obstructions'



## Community solar + other renewable energy: Primary uses vs. accessory uses

Example: vehicle parking in a Residence District



## Community solar + other renewable energy

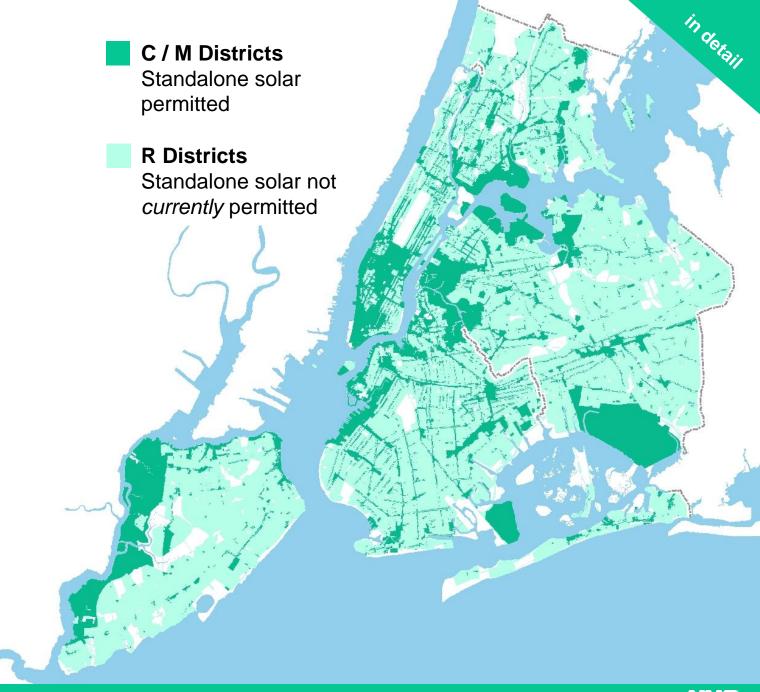
- Currently: The Zoning Resolution (ZR) currently classifies "non-accessory" solar generation as a commercial use.
- Issue: Large parts of the city are offlimits to crucially-needed, gridsupporting solar arrays. To locate here, solar and storage systems need to be kept small so that they can be considered "accessory" – precluding grid-supporting installations.
- Proposal: Reclassify this use as "energy infrastructure equipment (EIE)" and permit installations of <10,000 ft<sup>2</sup> in Residence Districts as-of-right.





# Community solar + other renewable energy

- Currently: The Zoning Resolution (ZR) currently classifies "non-accessory" solar generation as a commercial use.
- Issue: Large parts of the city are offlimits to crucially-needed, gridsupporting solar arrays. To locate here, solar and storage systems need to be kept small so that they can be considered "accessory" – precluding grid-supporting installations.
- Proposal: Reclassify this use as "energy infrastructure equipment (EIE)" and permit installations of <10,000 ft<sup>2</sup> in Residence Districts as-of-right.



**Energy storage systems (ESS)** 

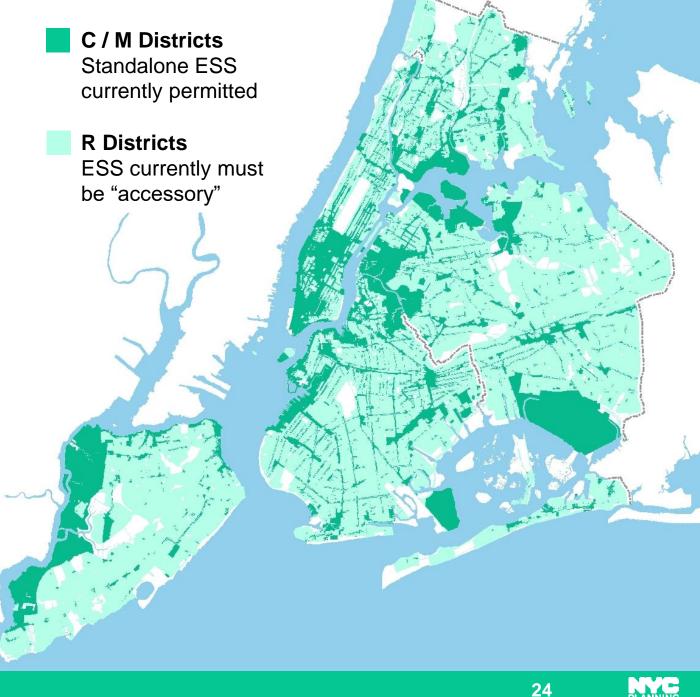
#### What is energy storage?

- Battery-based ESS are available with many different chemistries (e.g., Lead, LCO, LiFePO4)
- Battery-based systems are thoroughly reviewed, extremely safe, and are completely different from the systems found in common e-bike batteries.
- Each facility is essentially customdesigned and installed by specially-trained engineers and electricians.
- All installations must use UL-certified technologies pre-approved by FDNY
- All installations must be reviewed on a sitespecific basis by DOB
- All installations >250 kW are classified as "large" systems and also all must be reviewed in parallel by DOB and FDNY



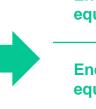
### **Energy storage systems (ESS)**

- Issue: The ZR currently does not have clear regulations governing energy storage. By interpretation, such uses can qualify as "electric utility substations" and thus must obtain a BSA special permit to locate in Residence Districts.
- **Proposal:** Create new uses within the ZR's Use Group 4 and Use Group 6 to accommodate grid-supporting "energy infrastructure equipment" (EIE):
- **Smaller installations**, with footprints smaller than 10,000 ft<sup>2</sup>, would be permitted as-of-right in Residence Districts.
- Larger installations, with footprints larger than 10,000 ft<sup>2</sup>, would still require BSA review before locating in Residence Districts. They would be allowed as-of-right in Commercial + Manufacturing Districts.



### **Energy storage systems (ESS)**

	R	C	M
	Districts	Districts	Districts
Accessory solar / wind	Permitted	Permitted	Permitted
Accessory ESS	AOR	AOR	AOR
Electric utility substation <10k sf	BSA permit	Permitted	Permitted
	needed	AOR	AOR
Electric utility substation 10k-40k sf	BSA permit needed	BSA permit needed	Permitted AOR
Electric utility substation >40k sf	CPC permit needed	CPC permit needed	Permitted AOR



	R	C	M
	Districts	Districts	Districts
Accessory solar / wind Accessory ESS	Permitted	Permitted	Permitted
	AOR	AOR	AOR
Energy infrastructure equipment ≤10k sf	Permitted	Permitted	Permitted
	AOR	AOR	AOR
Energy infrastructure equipment >10k sf	BSA permit	Permitted	Permitted
	needed	AOR	AOR
Electric utility substation regs will remain for actual substations	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>

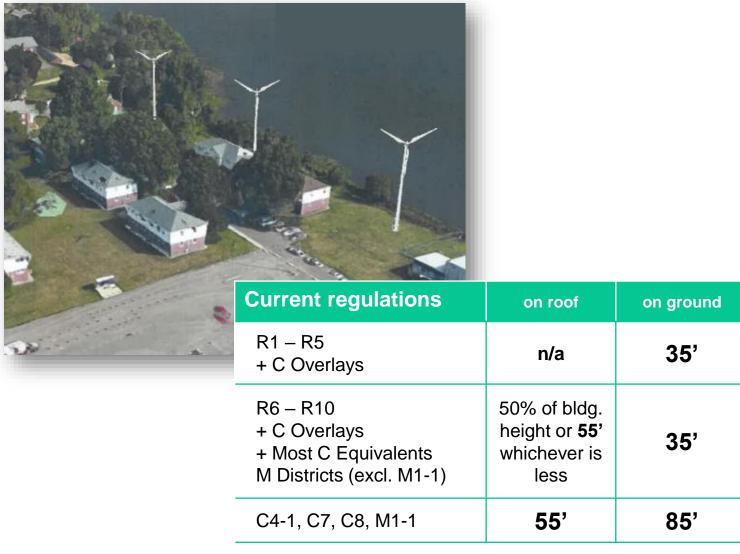
- + Clarifications that accessory energy storage + electrical equipment is included in "mechanical" floor area exemption
- + Clarifications allowing within rooftop mech. obstructions



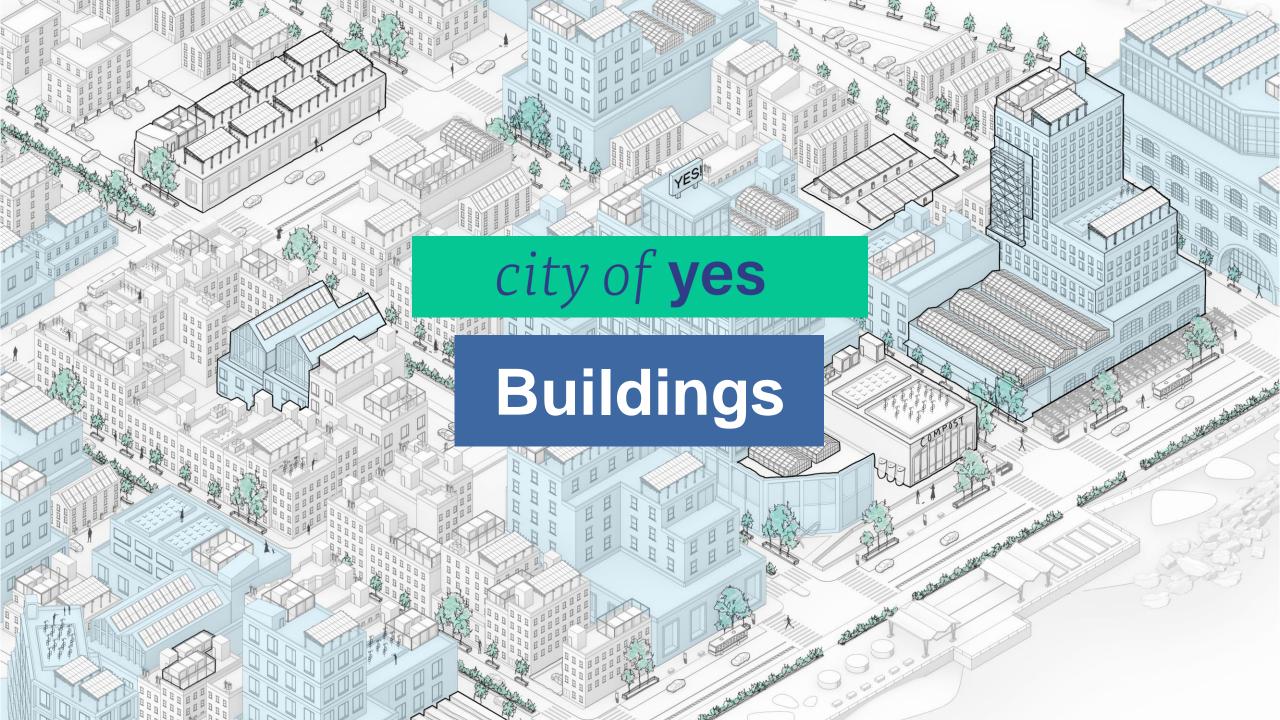
<sup>\*</sup> ESS Installations will always require safety review by DOB, and for systems >250kW, FDNY as well.

## New authorization for on-shore wind

- Currently: Along the waterfront, onshore wind turbines must comply with strict height limits (see table at right).
- Issue: Some installations may need greater height flexibility. However, there is no tool to allow the CPC to consider such applications.
- Proposal: Create a new authorization that will allow the CPC to consider future applications for height & setback relief to facilitate onshore wind. (This proposal itself will not change the height limits for onshore wind.)



Not allowed in, or within 10' of, waterfront yards and/or WPAAs



### **Decarbonize our building stock**

Our buildings are NYC's biggest source of CO<sub>2</sub> emissions

see: 2019 NYS CLCPA



To decarbonize our building stock, virtually every one of our city's 1,000,000+ buildings will need to be retrofit.

**2015 Roadmap to 80x50** 

Boilers and furnaces will need to be replaced with allelectric heat pumps

see: NYC 80x50

Windows and walls will need to be improved or replaced with new efficient ones.

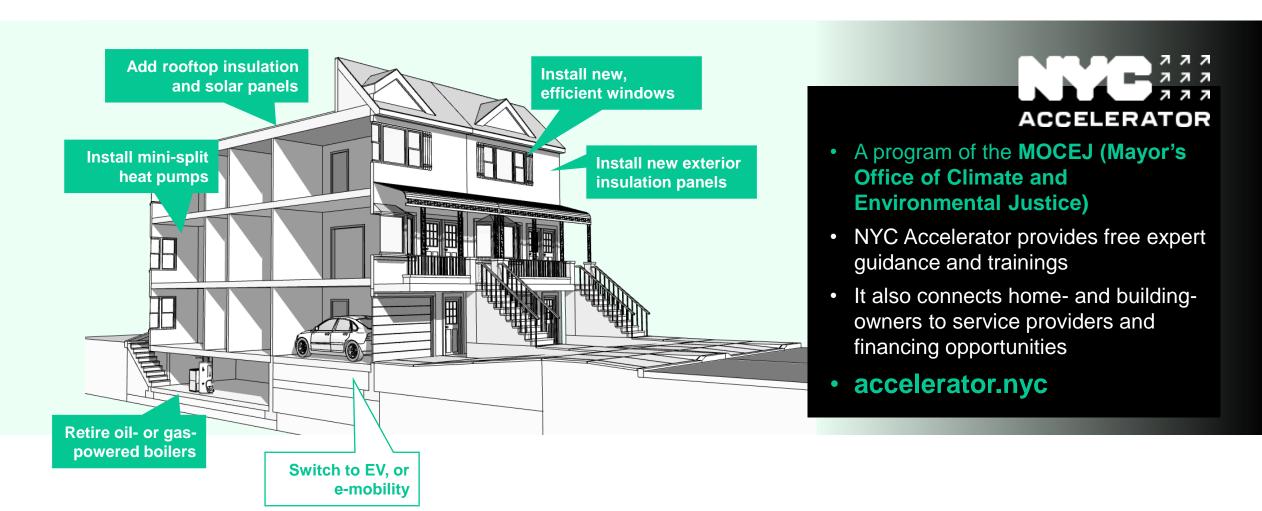
see: NYC 80x50

Large buildings (> 25,000 sf) that fail to cut their CO<sub>2</sub> emissions will face steep fines

2019 NYC Climate Mobilization Act (Local Law 97)

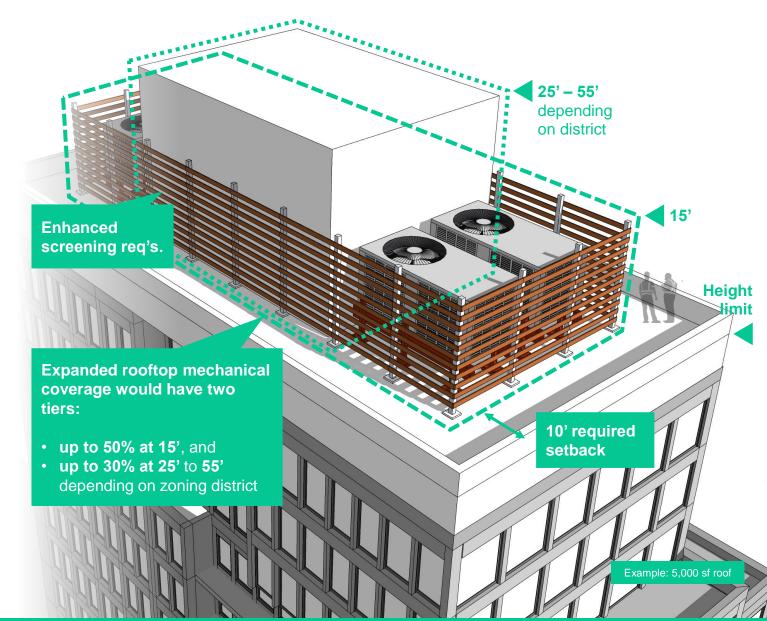
New buildings will be prohibited from installing fossil-fuel equipment Local Law 154

### Decarbonize our building stock



## Retrofitting mechanical equipment for electrification

- Currently: Zoning regulates how much rooftop mechanical equipment is permitted above the zoning height limit. This takes the form of a coverage cap, and separate height limit, on the rooftop mechanical equipment.
- Issue: Buildings which are retrofitting to all-electric systems often need to replace boilers in their basement with heat pumps that are outdoors, typically on their roof – sometimes running into zoning limitations.
- Proposal: To provide greater flexibility for electric equipment like heat pumps, zoning allowances that currently apply only within the floodplain would be rolled out citywide.



#### **Topic 6**

### Retrofitting mechanical equipment for electrification

Height & setback	coverage	height	
R3-2, R4, R5	20%* (varies based on use and district)	+25' * (varies based on use and district)	
R6 – R10, C, M where permitted height < 120'	20%	+25'	
R6 – R10, C, M where permitted height > 120'	20%	+40'	

Yards,	Courts	& Op	oen Sp	ace
--------	--------	------	--------	-----

**All accessory power systems** are permitted obstructions up to 25% of area, up to 10'/15' high

Height & setback	coverage	height
R3-2, R4, R5 residential	50%	at <b>+15</b> '
	up to 30%	at <b>+25</b> '
R3-2, R4, R5 community facilities R6 – R10, C, M where permitted height < 120'	<b>50%</b> up to <b>30%</b>	at <b>+15</b> ' at <b>+35</b> '
R6 – R10, C, M where permitted height > 120'	50%	at <b>+15</b> '
	up to <b>30%</b>	at <b>+55</b> '

#### Yards, Courts & Open Space

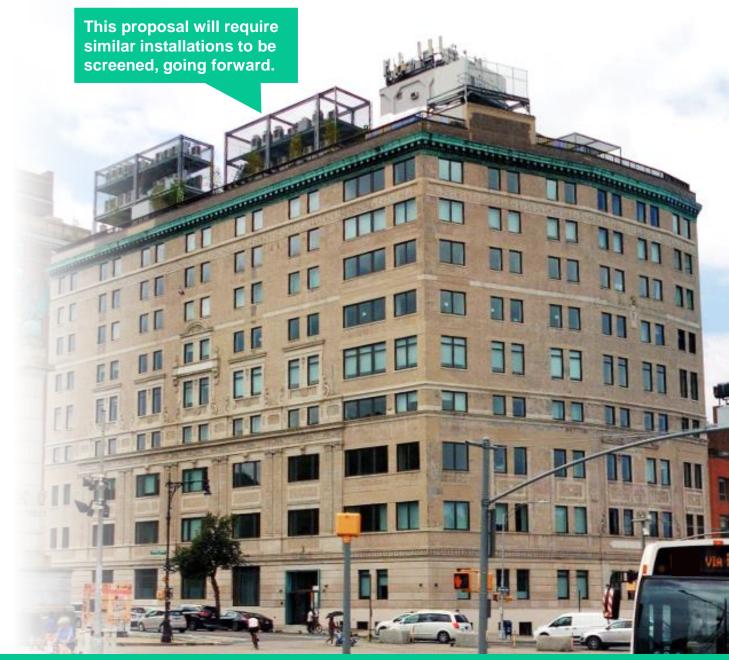
All <u>accessory mechanical equipment</u> (incl. power sys.) are permitted obstructions up to 25% of area, up to 10'/15' high



Topic 6

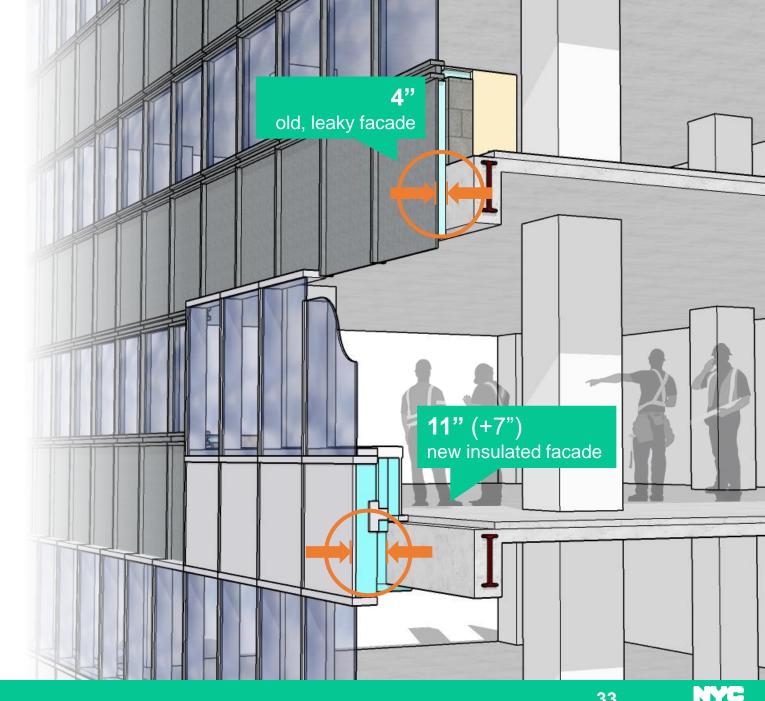
# Retrofitting mechanical equipment: screening

- Currently: Zoning currently requires
  accessory mechanical equipment that is
  a "permitted obstruction" above zoning
  height and setback requirements to be
  screened.
- Issue: Rooftop mechanical equipment that is not a "permitted obstruction" because it is below the zoning height limit has no applicable requirement.
- Proposal: We will be expanding our screening requirements to ensure better screening of permitted obstructions, as well as, for the first time ever, require other rooftop mechanical equipment which is not a permitted obstruction to be screened as well.



### Allowing envelope retrofits to meet code

- **Currently:** Zoning considers wall thickness as "floor area" - this counts against your FAR, or the amount you are allowed to build.
- **Issue:** When trying to completely replace a thin (4") façade with a thicker (11") façade, those additional 7" count as new floor area - and are not allowed to be added. This makes this façade replacement project impossible.
- **Proposal:** To ensure that a recladding is allowed, create a new allowance for additional wall thickness, provided the new wall complies with the latest thermal barrier requirements in the NYC Energy Code.

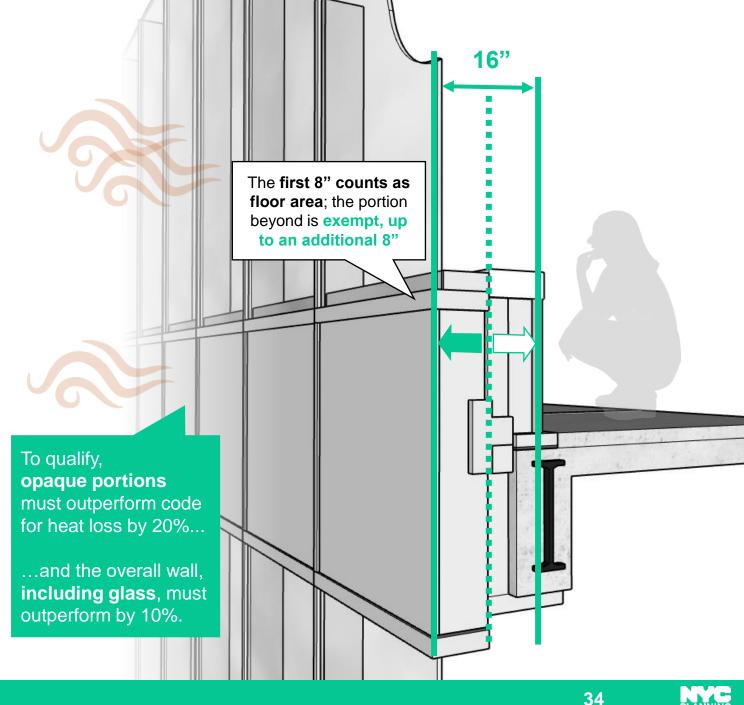


### **Promoting envelopes that** perform better-than-code

**Currently:** Zoning allows a 'wall thickness floor area exemption' (the "Zone Green bonus") for portions of walls that exceed Energy Code.

#### **Issues:**

- The current exemption focuses on the **heat** transmission (u-factor) of a wall. This misses other key criteria, such as air leakage.
- Code's "u-factor" has been heavily revised since Zone Green. It is very difficult to outperform today's u-factor, and nearly **impossible** to outperform future u-factors.
- Administering this "up to 8 inch" wall exemption is **complex + prone to issues**.
- It is impractical for **existing buildings** to take advantage of this exemption.



# Promoting buildings that perform better-than-code

#### **Proposal:**

Simplify the deduction from "up to 8in. beyond the first 8in. of wall thickness" into a **flat 5% exemption** from total FAR.

Align the exemption with Local Law 97 by promoting newer performance criteria:

- existing buildings which retrofit to become "fully electrified buildings" would be eligible for the exemption
- new buildings, which are already required to be fully electric (LL 154) would be eligible for the exemption if they design to "ultra-low-energy" usage building design standards.





## Promoting buildings that perform better-than-code

Today	
Wall thickness	deduction

Primarily for **new buildings** 

up to 8" of wall thickness

## Promote **higher u-factor** than required by Energy Code

- Focused on envelope heat transmission based on prescriptive Code requirements (u-factor) which are very hard to meet for opaque walls
- Hard for practitioners as well as DOB to evaluate and enforce
- Leads to contrived wall designs to unlock maximum 8" beyond 8" deduction.

## Proposed Pathway A **Promoting Code outperformance**

Available to **new buildings** 

## Proposed Pathway B **Supporting LL97 compliance**

Available to existing buildings

#### flat 5% FAR exemption

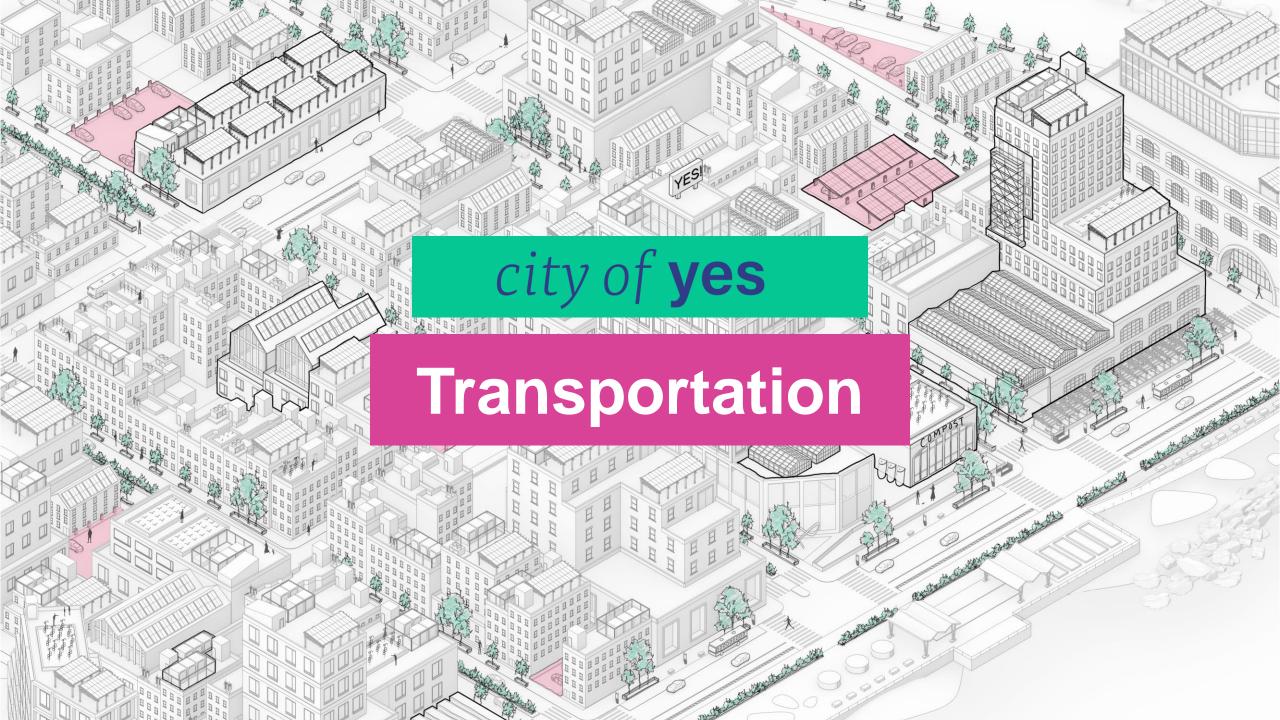
## Promote **ultra-low-energy** buildings which exceed today's requirements

- Flat FAR exemption eliminates complexity/issues
- Assumes a fully electrified building
- Building must demonstrate specific at time of plan review that they will be either a "net zero" building or achieve "ultra low energy" consumption:
  - a source energy use intensity (EUI) of 38 kBTU per square foot per year
  - or, 50% outperformance of comparable building which comply with code
  - · will require testing to verify performance

## Support compliance with LL97 by awarding floor area to **#fully electrified buildings#**

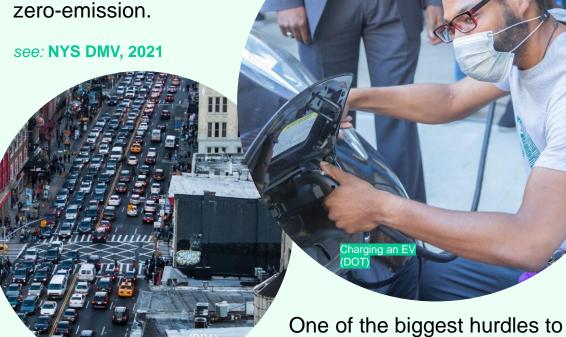
- Flat FAR exemption eliminates complexity/issues
- New construction will be required to be fully electric by 2024/2027 per LL 154
- Existing buildings have no incentive other than fines that may be levied under LL97 (if applicable to that building)





#### Decarbonize our vehicles

Less than 1% of the 2,000,000 cars registered in NYC are



By 2035, all vehicles sold in NYS must be EV; demand for charging will rapidly increase

see: NYS Adv. Clean Cars II

A one-to-one transition to EVs is not the solution. We also need to promote greater use of bicycles, e-mobility, and mass transit.

see: 2016 PlaNYC

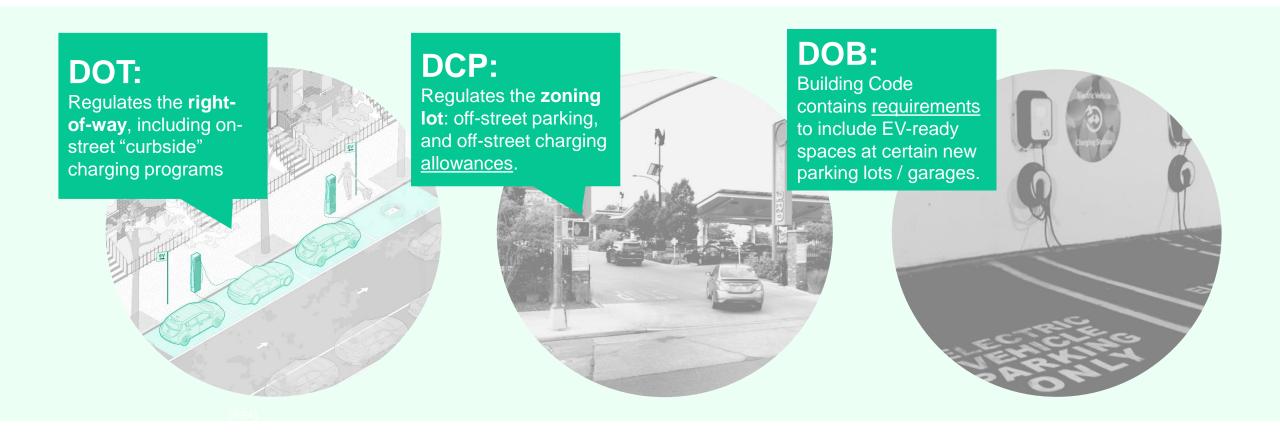
see: The New York Times

place to charge overnight.

achieving EV adoption is finding a



#### **Decarbonize our vehicles**



### Open-to-the-public EV charging facilities

- Currently: Zoning considers opento-the-public EV charging facilities as "Use Group 7" commercial uses.
- Issue: These facilities aren't allowed in many C Districts commonly mapped closest to where people live.
- Proposal: Reclassify these facilities as Use Group 6 uses that are permitted in all Commercial Districts, more than doubling the commercial land area available for EV charging facilities.

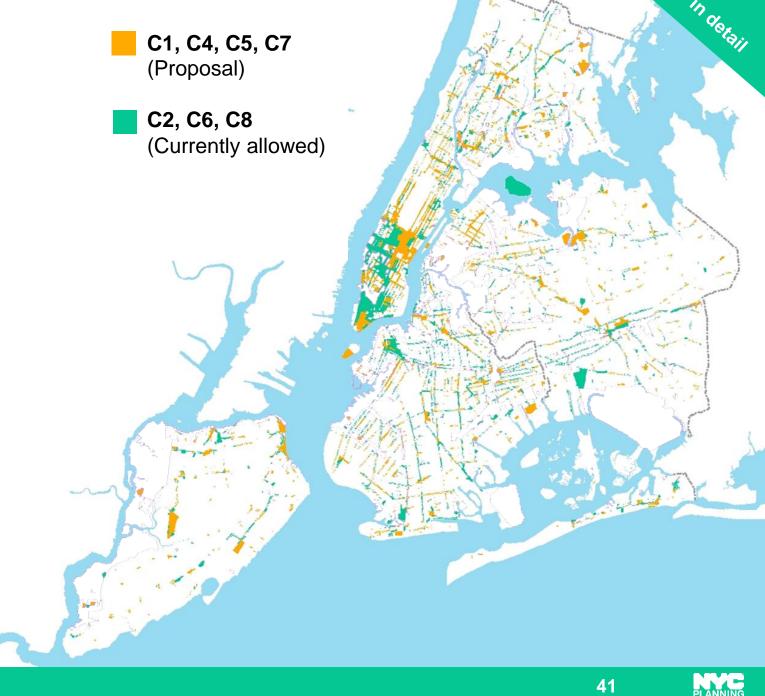


#### **Open-to-the-public EV** charging facilities

	Currently	Proposed
C1, C4, C5, C7	No	Yes
C2, C6, C8	Yes	Yes
All M Districts	Yes	Yes

All R Districts	No	Limited*
-----------------	----	----------

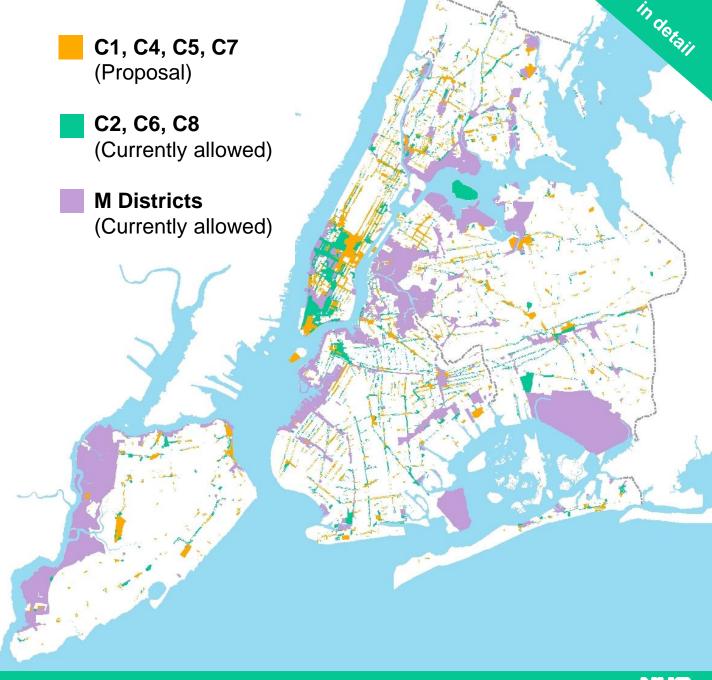
\* See next proposal



## **Open-to-the-public EV charging facilities**

	Currently	Proposed
C1, C4, C5, C7	No	Yes
C2, C6, C8	Yes	Yes
All M Districts	Yes	Yes

<sup>\*</sup> See next proposal



## **Expanding car sharing:** public EV charger sharing

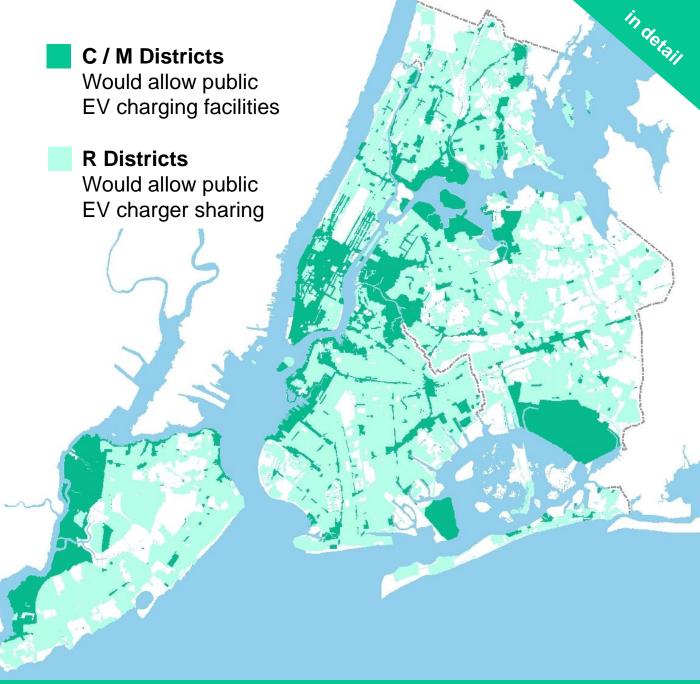
- Currently: Zoning generally requires
  parking spaces serving uses, such as retail
  stores, or apartment buildings. Accessory
  charging is permitted in all of these
  spaces. Some of these spaces are
  permitted to be occupied by commercial
  car share program vehicles.
- Issue: EV chargers installed in accessory spaces are not available to the public, per zoning rules.
- Proposal: Expand existing car share rules to allow property owners to designate up to 20% of their spaces (or 5, whichever is greater) for flexible, public EV 'charger-sharing', or car sharing, or any combination thereof.





## **Expanding car sharing:** public EV charger sharing

	<b>Current</b> Car Sharing	Proposed  Car Sharing +  EVCS Sharing
R1, R2, R4-1, R4A, R4B, R5A	Not allowed	Not allowed
R3-2, R4	<b>10%</b> in facilities w/ 20+ spaces	20% or 5 spaces whichever is greater
R5 – R10	20% or 5 spaces whichever is greater	20% or 5 spaces whichever is greater
Non-residential uses	20% or 5 spaces whichever is greater	20% or 5 spaces whichever is greater



city of **yes** 

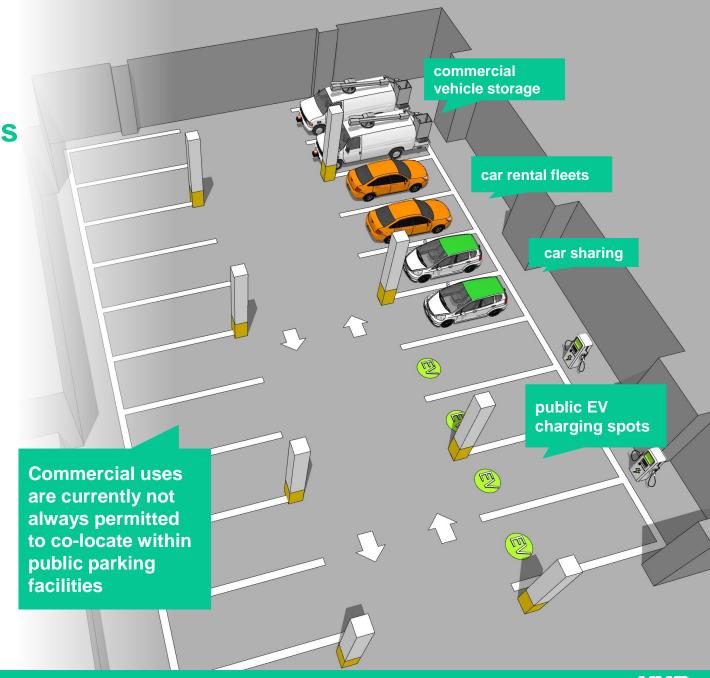
### Flex parking: commercial vehicles in non-residential districts

#### **Currently:**

Zoning separately regulates the use of parking spaces for (1) car sharing services, (2) car rental services, and (3) commercial vehicle storage.

#### **Issue:**

These rules are varied, confusing, and limited. They should be expanded to promote car rental/sharing services (as an alternative to personal car ownership) and provide more locations for overnight truck parking and charging.



### Commercial Fleet EV Charging in both Accessory and Public Parking Lots + Garages

Proposal: In most Commercial, and all Manufacturing Districts, allow up to 20% of accessory spaces to be occupied by:

1. car share vehicles, 2. car rental vehicles, 3. public EV charging spaces, 4. commercial vehicle (<20') storage
...or any combination thereof.

	R Districts C Dis		tricts		M Districts				
	Accessory	Public Lots / Garages	Accessory		Public Lots / Garages		Accessory	Public Lots / Garages	
	R3-2+ MF	N/A	C1, C2 mapped in R3-2+	C4, C5, C6, C7, C8	C1, C2	C4, C5, C6, C7, C8	M1, M2, N3	where permitted	
Publicly-accessible EV charging (not inclusive of any EVCS for below uses)	20% of total spaces, or 5 spaces, whichever is	otal s, or 5 N/A ces, ever is  20% of tota spaces, spaces	20% of total spaces, or 5 spaces, whichever is greater	20% of total spaces, or 5 spaces,	100% of total spaces	100% of total spaces	20% of total spaces, or 5 spaces,	100% of total spaces	
Car share services	greater	N/A			whichever is	50% of total	50% of total	whichever is	50% of total
Automobile rental services	N/A	N/A			greater	spaces	spaces	greater	spaces
Commercial vehicle storage (< 20 feet)	N/A	N/A	N/A		N/A	Spaces		Spaces	



## **Expansion of automated parking regulations**

- Currently: In limited areas, the ZR provides special allowances to "automated parking facilities" that are tailored to their unique operational needs versus a typical parking facility. For example, the minimum size requirements for a parking space are reduced to reflect the unique 'tray-and-rack' system used to store cars.
- Issue: These allowances don't apply outside of the Manhattan Core and a few other areas, limiting the feasibility of such facilities citywide.

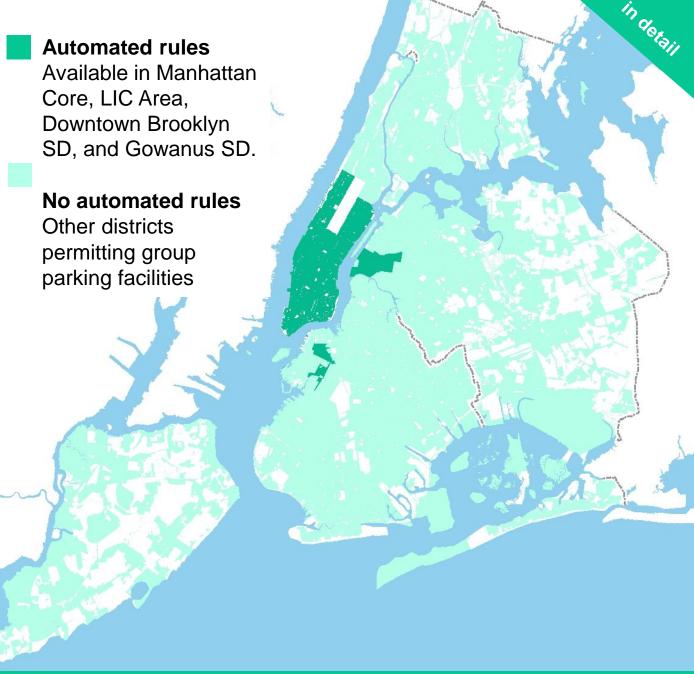


## **Expansion of automated parking regulations**

**Proposal:** To support the growth of automated facilities, this proposal would proactively expand the allowance and associated lower maneuvering requirements due to their high efficiency, on a citywide basis.

Typically	Current zoning- mandated size
Standard parking space	300 ft <sup>2</sup>
Attended or alternate maneuverability space	200 ft <sup>2</sup>

Automated rules	Current size set forth in zoning		
Automated parking tray (in designated areas only)	153 ft <sup>2</sup>		



## Bicycle and e-mobility: storage & charging uses

- Currently: Zoning provides use regulations for automobile parking and charging.
- Issue: Zoning doesn't provide any similar regulations for bicycles and other e-mobility. This creates regulatory uncertainty around where bike / micromobility parking facilities are permitted.
- Proposal: Create a new commercial use for public bicycle and micromobility parking. New rules would also provide for secure outdoor bike storage lockers as permitted obstructions in yards & open spaces.





80x50

#### **Decarbonize our waste streams**

Our waste stream only accounts for 4% of our City's greenhouse gas footprint – but there are some clear steps to take.

reduces the need for energyintensive stormwater treatment 80x50 Newtown

Reducing stormwater runoff also

Supporting local food systems can also play a role in reducing CO<sub>2</sub> associated with food.

80x50

By diverting organic material from the waste stream, we can reduce our solid waste by **45%** 

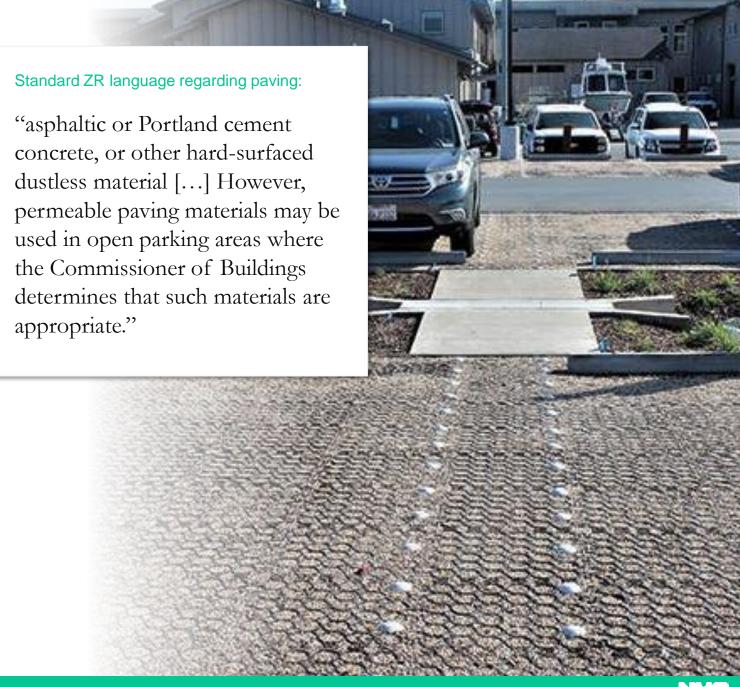
Sustainability Center

80x50

NYC

## **Expand the use of permeable paving**

- Currently: Zoning is supposed to allow any paving area to be paved with permeable paving.
- Issue: The text, as drafted, requires the Department of Buildings to investigate each proposed installation to deem it appropriate. Ambiguity about how to do so has complicated the process of using permeable paving in NYC.
- Proposal: Revise this language to make it clear that permeable paving is always allowed.



#### Allow for highperformance street beds

- Currently: Zoning requires street trees to be installed alongside new developments and enlargements.
- Issue: As drafted, the zoning text precludes the use of newer, more inventive prototypes such as "connected tree beds" and "raingardens" that have been designed and approved by DOT.
- Proposal: Add flexibility to the street tree requirements to allow location of required trees within connected tree beds or raingardens, as well allow as substitution of one required street tree with a DEP-compliant raingarden.



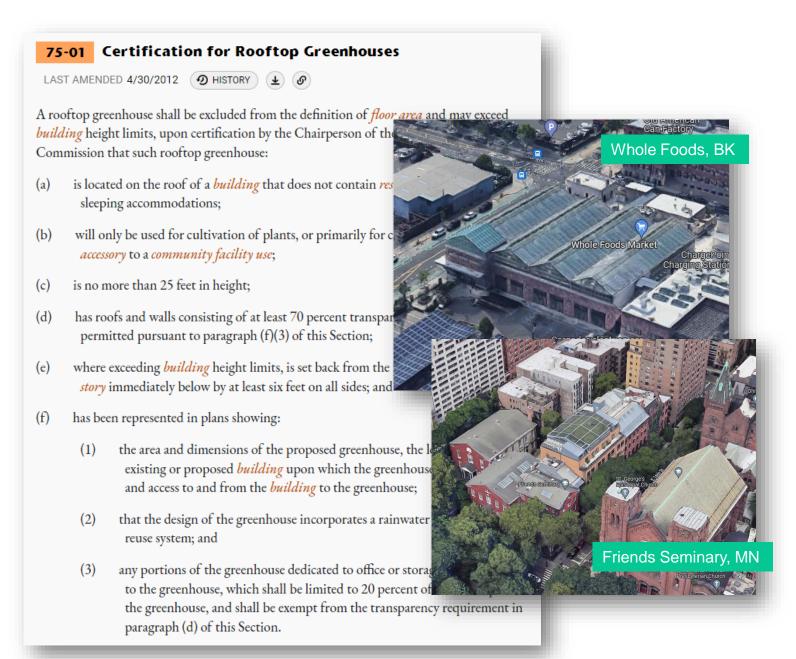
### Clarify regulations for composting & recycling

- Currently: Zoning doesn't mention "composting" or "recycling" at all.
- Issue: This creates confusion about where composting and recycling are allowed to occur. (DSNY's only compost facility is classified as a "dump" and located in a heavy M3 District on Staten Island.)
- Proposal: 1. Clarify that small-scale composting can be considered an "accessory use", 2. that neighborhood-focused recycling facilities can locate in commercial storefronts, and 3. that large-scale facilities should continue to locate in Manufacturing Districts.



## Facilitate rooftop food production

- Currently: Zoning allows rooftop greenhouses to be added atop non-residential buildings, beyond maximum FAR and height limits.
- Issue: Even though there are a few straightforward requirements, all applicants are required to obtain a CPC certification that they've followed the rules – increasing the cost and process, and discouraging projects.
- Proposal: Change the rooftop certification to an as-of-right allowance. (Proposals would still be evaluated for compliance by DOB.)



#### **Summary of proposal**



- 1. Rooftop solar: removing zoning impediments.
- 2. Solar parking canopies: remove zoning impediments to allow.
- Solar: ensure standalone generation is allowed
- 4. On-shore wind: add a new tool for the CPC to consider future applications
- 5. Energy storage (ESS):
  add new rules to allow gridsupporting ESS in a wide
  range of zoning districts



- 6. Electrification retrofits: expand rooftop and yard allowances to accommodate increased need for outdoor electrified equipment like heat pumps
- Building exterior retrofits: fix rules to ensure that the widest range of exterior retrofits are allowed.
- 8. Fix Zone Green:
  update and improve this floor
  area exemption to ensure it
  continues to promote betterthan-code performance.



- Vehicle charging: expand allowance to all Commercial Districts
- 10. Charge-sharing: allow a % of residential spaces to be shared w/ the public
- 11. Parking flex: streamline car-sharing, car rental, and commercial parking rules
- 12. Automated parking: expand rules to encourage more automated facilities
- **13. Bike parking:** add rules for storage and charging



- 14. Porous paving: clarify language to ensure permeable paving is allowed.
- **15. Street Trees:** update rules to accommodate new raingarden prototypes
- 16. Organics: add new use regulations clarifying when composting and recycling are allowed.
- 17. Rooftop greenhouses: simplify the process to allow them as-of-right



#### Racial equity report

As a zoning text amendment affecting more than 5 community districts, this proposal is subject to the racial equity reporting requirement.

The proposal serves as an important step to meet the City's climate goals by alleviating regulatory burdens and allowing for the creation of a more sustainable, more resilient and more equitable city.

Due to the nature of this proposal, no increases in residential space, non-residential space, or other development activity are anticipated. Therefore, analysis of residential affordability, employment, or construction jobs is not applicable.



#### A 'peaker' plant – among the dirtiest forms of energy production in NYC.

Source: Gotham Gazette, "Peaker Plants Harm Communities of Color; It's Time for New York City to Replace Them" (2020) by Rachel Spector (NYLPI), Elizabeth Yeampierre (UPROSE) & Dariella Rodriguez (The Point CDC)

# Beginning the public review process

