SOLAR PANEL INSTALLATIONS



NYC Department of Buildings – March 20, 2024



Agenda



Solar Permits Processing at the DOB

- Overview
- General Requirements
- Solar Approval / Permit / Sign off
- Property Tax Abatement Program
- Zoning Requirements
- Specialized Applications
- Guard rails
- Contact

Overview



Where we are

- •Total PTA4 and Non PTA4 applications filed (DOB records start from 2011)
 - 2011 165 Applications
 - 2012 **277 Applications**
 - 2013 **761 Applications**
 - 2014 2016 Applications
 - 2015 2399 Applications
 - 2016 4084 Applications
 - 2017 4631 Applications
 - 2018 5815 Applications
 - 2019 5577 Applications
 - 2020 **5190** Applications
 - 2021 6012 Applications
 - 2022 8000 + Applications
 - 2023 12000 + Applications
- •All solar and EESE (Electrical Energy Storage Equipment) are now filed on DOB NOW.

Overview



Where we are (con't)

- Per <u>Title 4-C</u>, if the solar electric generating system and/or electric energy storage system is placed in service on or after January first, two thousand twenty-four, and before January first, two thousand thirty-five, for each year of the compliance period such tax abatement shall be the lesser of
 - (i) seven and one-half percent of eligible solar electric generating system and/or energy storage system expenditures,
 - (ii) the amount of taxes payable in such tax year, or
 - (iii) sixty-two thousand five hundred dollars.

There are more information for solar jobs filed prior to 2024. Please refer to the § 499-bbbb of Title 4-C for more details.

Local Laws 92 and 94/2019 - Effective November 15, 2019,
These laws amend the 2014 / 2022 Administrative Code and Chapter 15 of the NYC
Building Code to require, subject to certain exceptions, new buildings, new roofs resulting
from enlargement of existing buildings, and existing buildings replacing an entire existing
roof deck or roof assembly to be provided with a "sustainable roofing zone," 100 percent
of which must either be a solar photovoltaic electricity generating system, a green roof
system, or a combination thereof. BB 2019-010

General Requirements



Construction Project Requirements by NYC Department of Buildings

- Construction Permit required before beginning of installation
- Electrical Permit required before beginning of installation
- Construction Sign-off required following the completion of installation and provided by the Department Of Buildings
- **Electrical Sign-off** required following the completion of installation and provided by the Department Of Buildings
- Con Edison Connection Letter required following the completion of installation and provided by Con Edison. Note: Con Edison letter will not be issued unless an Electrical signoff is obtained.
- OTCR Conditional Approval required for Electrical Energy Storage Equipment applications
 prior to beginning of installation and final approval required following the completion of
 installation

General Requirements



Filing Requirements at the NYC Department of Buildings

- Projects filing for the Property Tax Abatement (PTA) must be filed through DOB NOW, Standard Plan Exam or Professionally Certification. There is no more Self-Certification of Objections filings type for solar.
- Applications must be filed as work type, SOLAR (SL).
- All Solar and EESE applications are centrally reviewed by Central Development Programs, formerly Hub Full Service.
- <u>BB 2018-008</u> requires a final inspection by the design professional of record for many Alteration Type 2 work types, including SOLAR.

General Requirements



Licensing Requirements

- New York State Registered Architect (RA) or Professional Engineer (PE)
 Required to submit drawings to obtain building permits and considered
 applicant of record, or AOR. Anyone can prepare applications, but license
 numbers and seals are required on forms officially submitted to DOB and
 FDNY as required.
- NYC Certified Asbestos Investigator- The NYC DEP requires a Certified Asbestos Investigator to verify if there is asbestos containing material (ACM) in the area construction is taking place. The exception is for buildings constructed per plans approved after April 1, 1987. The asbestos forms must be submitted through ARTS (Asbestos Reporting and Tracking System), and signed/sealed by the Certified Asbestos Investigator.
- NYC Registered Special Inspector and Special Inspection Agency

 TR1

 Special Inspections must be completed and signed by a registered Special
 Inspector or Special Inspection Agency. AOR may perform Progress
 Inspections and may be qualified to perform Special Inspections.



DOB NOW Filing Process

Step 1: File your application online

Fill out your forms online, upload all documents and drawings through DOB NOW.

Step 2: Pay online

Debit/Credit cards and E-checks are accepted online Full payment at time of filing will expedite the issue of a Permit

Step 3: Submit

Central Development Programs: Submit job online for standard plan exam or Professional Certification. Prof-Cert jobs are subject to random audit.

Step 4: Obtain Construction Permit

Electronically fill the form under "Work Permit" tab in DOB NOW filings and submit.

Download the Permit



Required "Forms" for Construction Approval / Permit

(Required forms are designed as Tabs in DOB NOW.)

- **Plan/Work (PW1)** Project / site / building characteristics and zoning information. Applicant and owner information.
- Tax Abatement A separate Property Tax Abatement form (PTA4) is no longer required. The
 information can be filled out in "Tax Abatement" in DOB NOW.
- Cost Affidavit (PW3) Application fees are based on construction cost. PTA applications are limited only to work pertaining to the solar installation.
- Technical Report (TR1, TR2, TR3, TR8, etc.) Statement of Responsibility
 - Special Inspections: Structural Stability, Fire-Resistant Penetrations and Joints,
 - Progress Inspections: Energy Code Compliance Inspections, Final
 - Other Special / Progress Inspections: As applicable
- Work Permit General Contractor's information
- Statements & Signatures Applicant of Record's Attestation, Owner's Attestation, Owner's Arrears.



Required Form for Construction Approval / Permit (cont'd)

- TPP Tenant Protection Plan If Building is occupied during construction.
 - As of November 10, 2020 (see November 2020 Service Notice), the TPP is a required item submitted **prior to permit** and submitted through **DOBNOW**, Previously, it was an item required prior to approval and reviewed by Plan Examiner. See service notice for updated requirements on who is permitted to file TPP.
 - Applicant can request TPP under "Filing Action" of a job that requires a TPP.
- ACP7/ACP21 or ACP5 Asbestos documents submitted to DEP
 - <u>ACP7/ ACP21</u> Asbestos containing material (ACP) are present where construction will occur, where the work will disturb 25lf or 10sf of asbestos containing material. Asbestos must be properly abated prior to issuance of construction permit.
 - <u>ACP5</u> Minor project where less than the above will occur. Submitted prior to approval.
 - <u>Exemption</u>: buildings constructed per plans approved on or after April 1, 1987



Required Forms for Construction Approval / Permit (cont'd)

• L2 If any L2 is required prior to permit, it should be submitted through DOBNOW

Items Required for specific jobs only

- FDNY Letter of Acceptance
 - Required when variance to Fire Code requested and approved TM-5



Required Forms for Construction Approval / Permit (cont'd)

Items Required for specific job types only (con't)

- PW1B/Plumbing Riser Diagram Schedule B Plumbing
 - Required for Solar Thermal applications
- Landmarks Preservation For projects within a Landmarks Preservation District or for an individual Landmark.
 - Certificate of No Effect for existing buildings
 - Certificate of Appropriateness for new buildings
- Public Design Commission
 - Approval for buildings that are on city owned property, excluding NYCHA
- OTCR
 - Approval for buildings that incorporate energy storage equipment into design.



Required Signatures

- Building Owner
- NYS Registered PE or RA
- General Contractor
- Certified Asbestos Investigator
- Notary



Required Items On Architectural Drawings

- **Plot plan** location of the building on the site indicating pertinent streets, trees, structures, city services, utilities, site hazards and adjacent buildings.
- Site plan, roof plan(s), elevation(s) showing the solar modules in place, other equipment and structures pertinent to or having impact on code compliance of the system, Fire Code compliance, and roof elevation datum of the building and adjacent buildings.
- System Components
- Location of Main Meter, AC Disconnect Switch, Inverter(s)
- Zoning compliance including height and setback requirements for specific Zoning District.
- **Flood Hazard compliance** if applicable. Include FIRM/PFIRM, substantial improvement calculations, BFE, DFE and other flood lines on elevations.



Required Items On Architectural Drawings (cont'd)

- Energy Analysis NYCECC and Special Inspections Matrix
- Anchorage & Racking System listed as an assembly, including structural criteria
- Personal Fall Arrest System if proposed. Refer to <u>BB2023-008</u> for more details.
- Structural & Wind Analysis/statement
- **Fire Department access** for firefighting and maintenance (Fire Code § 512). Provide access landing, fire access path and railings as required.

Note: No electrical drawings are required for architectural plan approval.

However, a separate electrical review is required for solar systems connected to the 1st or 2nd level OCPD of an existing 1000KVA service. And a CCD-1 is required for solar equipment above 600 volts.



Required Items for Electrical Permit / Sign off

- ED16A (Electrical Permit Application) file electronically through the DOBNOW online filing system. Must be filed by NYC Master Electrician.
- Work Permit issued no plan review required. However, systems above 600 volts OR 1000KVA and above require a CCD-1 is required. We will elaborate on the next slide.
- **Electrical Inspection** Arrange for DOB Electrical Inspection for sign-off. A Three Line Electrical Diagram is required at the time of sign-off inspection.
- Note These items are pursued independently from the Construction Drawing approval.



CCD1 Electrical Pre-Determination / When required

Currently, NYC adopts the 2008 NEC (2011 NYCEC). A practical difficulty of complying with Article 690 of the 2011 NYCEC for solar Systems over **600 Volts** requires applicants to file a Pre-Determination CCD1 in order to use the 2014 NEC for solar installation and inspection. NYC will be adopting the 2020 NEC.

For applications that are for proposals 1000KVA or above, OR for systems connected to a 1st or 2nd level of an existing 1000KVA service, a filing for electrical plan examination is required.

File CCD1 through HUB Full Service at HubFSDeterminations@buildings.nyc.gov

Request will be logged in and forwarded to Technical Affairs to continue review. After review, Technical Affairs refers response to HUB Full Service. HUB Borough Commissioner reviews/signs CCD1. CCD1 then forwarded back to Technical Affairs and Applicant for Record.

Technical Affairs works with HUB Full Service to expedite applications based upon volume.



To Obtain Property Tax Abatement

- The signed-off application must be submitted to DOB by March 15, in order for the abatement to commence on July 1 of that year. This includes filing some items through e-submit, and some items through DOBNOW. Items that are required after permit / construction are as follows:
 - Submit any PAA's for as-builts, etc. through e-filing (notify HUBFSProjectAdvocate@buildings.nyc.gov) once documents are uploaded. For existing solar applications on BIS only.
 - After work is completed, request construction inspection through DOBNOW.
 - Request electrical inspection through DOBNOW.
 - Obtain Con Edison Utility Letter.
 - Upload PW7, Final PTA4, PW3, EN2, TR1, TR7, and all other required sign-off documents (including Construction and Electrical inspection approval) through e-submit. These documents are all to be uploaded at the same time. For existing solar applications on BIS only.



To Obtain Property Tax Abatement

- For existing solar applications on BIS,
 - Email <u>greennroofandsolar@buildings.nyc.gov</u> to request sign-off. Please ensure that all required documents/inspections have been satisfactorily completed.
- For DOB NOW jobs, select "Request LOC" from the dropdown list under "Select Action" of the job.
 - DOB reviews the documents and signs off the job / creating a Letter of Completion (LOC).
 - DOB submits to DOF
 After DOB sign-off is completed, DOB sends list of applications to DOF for processing. DOF sends letter to Owner outlining eligible expenditures, percentage of property tax deduction, start and end dates of tax abatement.

Electric Energy Storage System



Updates to 1 RCNY 105-02

- The rule, <u>1 RCNY 105-02</u>, has been updated to include eligibility for property tax abatement for the installation of electrical energy storage equipment (EESE).
- After January 1st, 2024, a building can file more than one tax abatement pursuant to <u>Title 4-C</u>. 1 RCNY 105-02 will be updated in the future to reflect that.



New defined term

"Energy infrastructure equipment" **shall include renewable energy generation systems**, such as **solar** or **wind** energy systems, and **energy storage systems**, such as **fuel cells** and **batteries**, which are essential throughout all districts in order to support the acceleration towards a distributed energy grid with electricity from fully renewable sources.

Energy infrastructure equipment shall refer to equipment that is a **principal use** on a zoning lot. Where such equipment is accessory to another use, it shall be considered accessory mechanical equipment.

Provisions pertaining to energy infrastructure equipment shall apply to all types of renewable energy generation systems, as well as to all types of energy storage systems, unless specific rules are otherwise specified, such as for solar and wind energy systems.







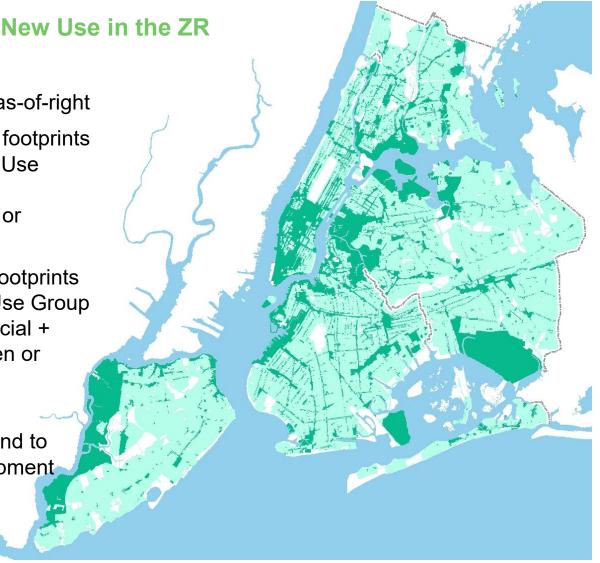
NEW: Energy infrastructure

equipment (EIE) permitted as-of-right

 Smaller installations, with footprints smaller than 10,000 ft², are Use Group 4C, permitted in all Residence Districts, open or enclosed.

 Larger installations, with footprints larger than 10,000 ft², are Use Group 6F, permitted in all Commercial + Manufacturing Districts, open or enclosed

 Screening and enclosure regulations apply to EIE and to accessory mechanical equipment





Energy Storage Systems (ESS) as a principal use

BEFORE: The ZR was unclear regarding energy storage. <u>Buildings</u> <u>Bulletin 2019-007</u> (Fuel Cell/BESS Installation) found that such uses qualified as "electric utility substations" which are allowed in Commercial districts up to 10,000 sf, or unlimited in size in M districts.

NEW: ESS permitted as energy infrastructure equipment (EIE):

- Use Group 4C, Special Infrastructure, in all Residence Districts (<10,000 ft²)
- Use Group 6F, Special Infrastructure, (unlimited in size)





Summary of solar and ESS changes

Previously

Previously				
	R	C	M	
	Districts	Districts	Districts	
Accessory solar / wind	Permitted	Permitted	Permitted	
Accessory ESS	AOR	AOR	AOR	
Solar energy systems	Not	Permitted	Permitted	
(UG 6 primary use)	permitted	AOR	AOR	
ESS <10k sf	BSA	Permitted as	Permitted as	
	permit	UG 6D	UG 6D	
	needed	substation	substation	
ESS 10k – 40k sf	BSA	BSA	Permitted as	
	permit	permit	UG 17C	
	needed	needed	substation	
ESS >40k sf	CPC permit needed	CPC permit needed	Permitted as UG 17C substation	

New regulations

New regulations				
	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	n/a	<u>n/a</u>	<u>n/a</u>	

^{*} ESS Installations requires safety review by OTCR, and for systems >250kW, by FDNY as well.



Accessory mechanical equipment & Energy Infrastructure Equipment (EIE) Permitted Obstructions

Accessory mechanical equipment

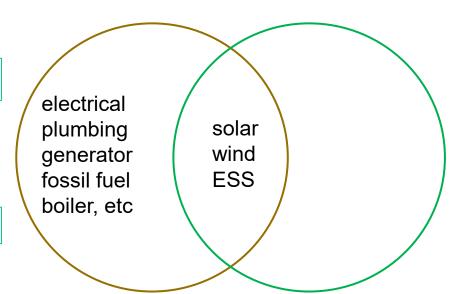
t ZR <u>12-10</u>

- MEP systems
- fire protection systems
- all power systems
- ESS

EIE as Principal Use

- renewable energy generation systems such as solar or wind
- energy storage systems

ZR <u>22-14</u>



Accessory mechanical equipment

Energy infrastructure equipment (EIE)



EIE & Accessory Mechanical Equipment Open Space & Yards – R districts

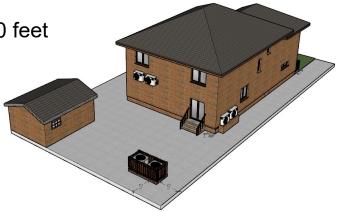
Within open space, EIE & accessory mechanical eq.:

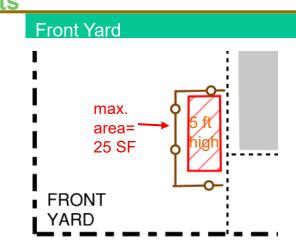
ZR <u>23-12</u>

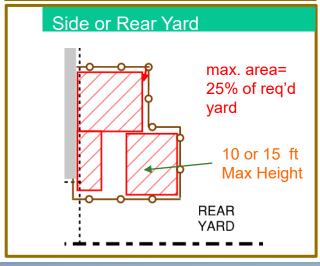
For permitted EIE & accessory mechanical eq. ZR23-12 refers to ZR23-442.

ZR <u>23-441,</u> 442

- All equipment & screening max. 25% area of a yard.
- Max. 25 sf. within front yard.
- Max. height, R1-R5:
 - Side or rear yard: 10 feet
 - Front yard: 5 feet
- Max. height, R6-R10:
 - 15 feet







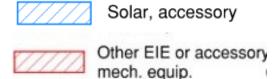


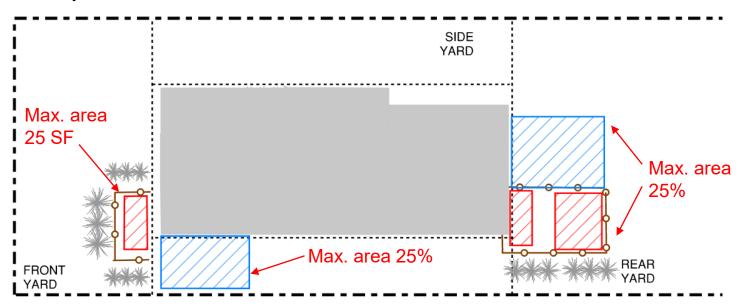
Solar Energy Systems as part of EIE or accessory mechanical Permitted Obstruction – R districts

Solar energy systems as EIE if NOT within 18 "of building wall (not on the roof):

ZR <u>23-442(a)(7)</u>

- Max. 25% area of the yard,
- Max. Height:
 - 10 ft. in R1-R5
 - 15 ft. in R6-R10
- 25 sq. ft. max. within front yard.







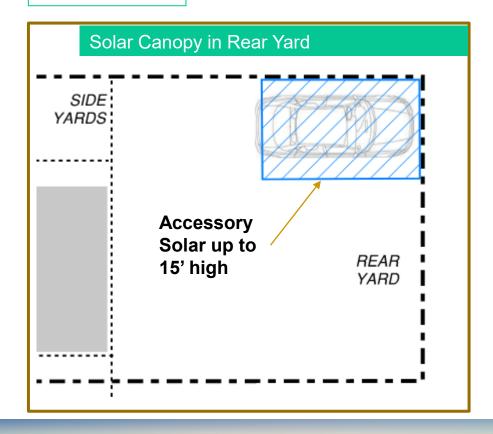
Solar Energy Systems in Open Space Permitted Obstruction – R districts

On solar canopies over accessory offstreet parking space:

- Max. 15 ft. in height from the adjoining grade.
- Max. 18" on roof of an accessory building.



ZR <u>23-12(g)</u> ZR25-64





Solar Energy Systems in Yards Permitted Obstruction – R districts

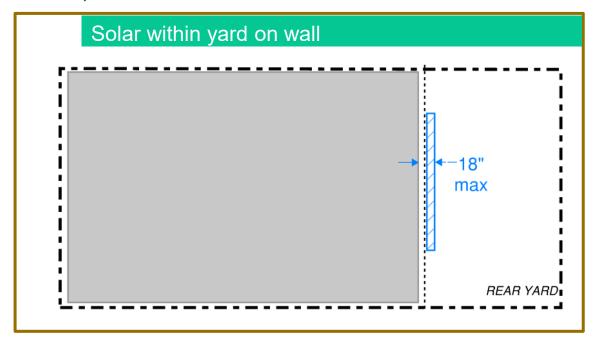
Max 18" projection from exterior walls

ZR <u>23-441(a)(1)</u>

Existing buildings on April 30, 2012 and December 6, 2023:

 Max. 10" for & max. 20% coverage of the wall (for #qualifying exterior wall thickness#)







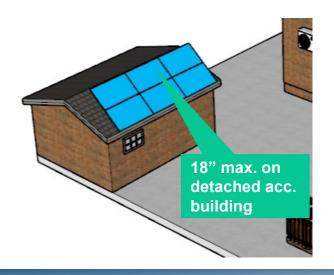
Solar Energy Systems in Yards Permitted Obstruction – R districts

On roofs of permitted buildings in rear yard & rear yard equivalent:

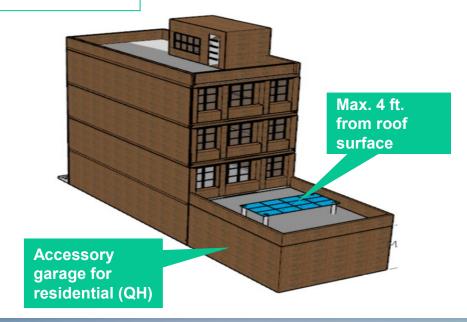
 Max. 4ft. from the roof surface (e.g. Garage for Quality Housing) ZR <u>23-441(b)(6)(i)</u> <u>23-442(b)(2)(ii)</u>

On detached accessory building or other structure:

- An additional height of 18" max. from the roof surface.
- Max. 18" from roof with slope>20 degree.



ZR <u>23-441(a)(12)(ii)</u>





Solar canopies over parking areas Permitted Obstruction

- BEFORE: Zoning allows "accessory offstreet 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.
- NOW: Allow solar awnings / canopies (pictured at right) to cover parking areas by adding them as 'permitted obstructions'





Solar canopies over parking areas Permitted Obstruction

Over parking spaces
 associated with public parking
 lots, automobile rental
 establishments, or commercial
 or public utility vehicle parking
 facilities, Max ht.15 ft.

ZR <u>33-23(b)</u>

 Manufacturing districts allow the same ht.

ZR <u>43-23(b)(3)</u>

 Where more than 75% parking area is cover by solar canopies, landscaping requirements are not applicable for the area covered by solar canopies.

ZR <u>37-923(a)</u>





Solar Energy Systems on building rooftops (flat) Permitted Obstruction

Previous 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	allowed		

New for solar energy systems, where above the zoning height limit:			
Height limit	15' (all districts)		
Coverage cap	100%		
Rooftop setback	0' from street wall		
Contextual setback	Allowed		



Solar Energy Systems on building rooftops (flat) Permitted Obstruction

- BEFORE: Zoning allowed 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 applied.
- how much solar a home/building owner could install, artificially limiting solar potential and making installations infeasible. (The 6' height in certain districts also conflicted with **FDNY need for 9'** of clear headroom.)
- NOW: Removed coverage and setback requirements for rooftop solar, and applied a 15' maximum height limit to all flat-roof solar installations, regardless of district.

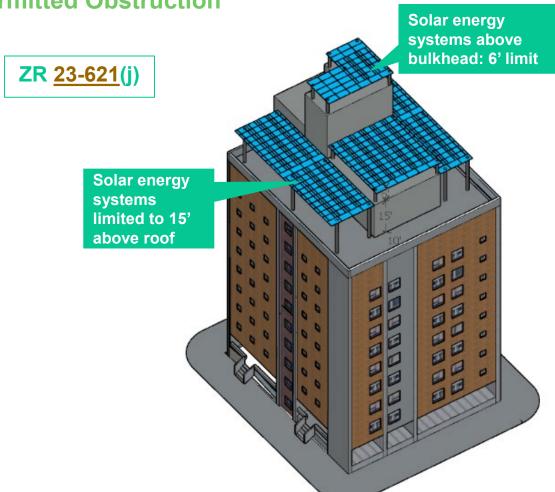




Solar Energy Systems on building rooftops (flat)
Permitted Obstruction

R1 through R10:

- Max. 15 ft. in height on roofs with slope less than 20 degree.
- Max. 6 ft. when located on a bulkhead or other permitted obstruction.

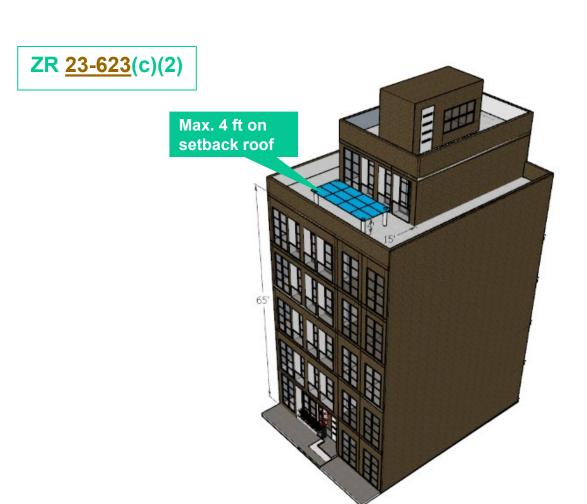




Solar Energy Systems on building rooftops (flat) Permitted Obstruction

For R6 – R10 Quality Housing:

- Max. 4 ft. on setback roof.
- Max. 18" on roof with slope more than 20 degree.

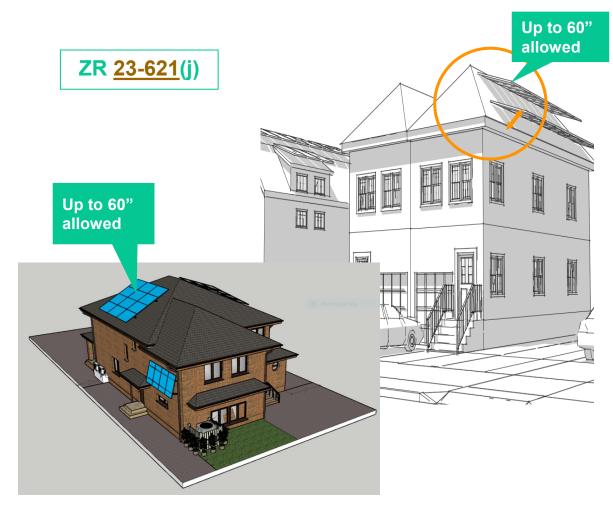


Zoning Requirements



Solar Energy Systems on building rooftops (sloped) Permitted Obstruction

- BEFORE: Zoning previously allowed 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.
- NOW: Provide greater flexibility for rooftop solar on pitched roofs, by expanding the 18" allowance to 60".

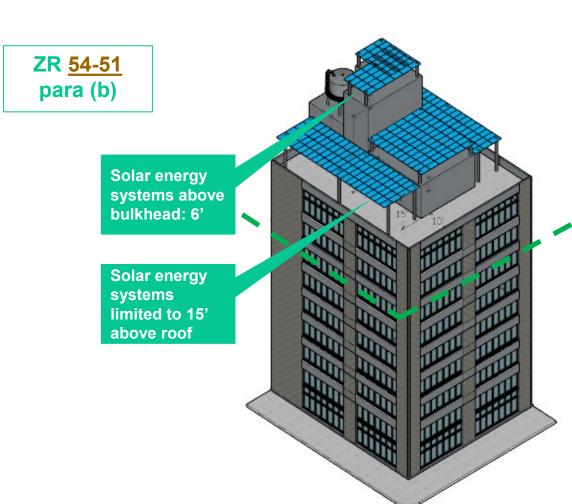


Zoning Requirements



Non-Complying Buildings

- Applies to:
 - energy infrastructure equipment (EIE)
 - accessory mechanical equipment
- Height and setback shall comply with:
 - the height and area restrictions in underlying regulations
 - Substituting existing rooftop for maximum height limit



Code Requirements



Local Law 92/2019 and 94/2019

- As stated in previous slide Local Laws 92 and 94 of 2019 amend the 2014 and 2022 Administrative Code and Chapter 15 of the New York City Building code to require, subject to certain exceptions, new buildings, new roofs resulting from enlargement of existing buildings, and existing buildings replacing an entire existing roof deck or roof assembly to be provided with a "sustainable roofing zone", 100 percent of which must be a solar photovoltaic electricity generating system, a green roof system, or a combination thereof.
- Refer to Buildings Bulletin 2019-010 / 2022 BC 1512 / 2022 AC 28-101.4.3(12)
- Applies to projects with construction documents approved on or after November 15, 2019, unless the construction documents have attained BIS job status K (plan exam partial approval) prior to such date.
- Tax Abatement permitted. For solar tax abatement, solar component to be filed as a separate application.
- Zoning Resolution as presented also applies to such filings.



Flood Zone Requirements

For buildings situated in a Special Flood Hazard Area

- FIRM / PFIRM Maps.
- Substantial improvement calculations (if required)
- Indication of BFE/DFE on elevations
- Special Inspections Flood Zone Compliance BC 1704.29 BC G105 (may be required)
- Site Survey:

Option I: Site Survey or Elevation Certificate stamped by NYS licensed surveyor within the last year.

Option II: Site Survey or Elevation Certificate older than one (1) year. This requires a professional statement and seal by applicant of record on an Al-1 Form noting: "The Site Survey is consistent with current site conditions".

Option III: Where all the equipment, other than the AC disconnect switch, is located on the roof, the Applicant shall include a utility certification on the plans stating:

"I certify to the best of my knowledge, belief, and professional judgment, all work under this application is installed above the DFE in accordance with the appendix G of the NYC Building Code except for the AC disconnect switch and conduit connection to the AC disconnect."



Equipment Locations in Flood Zone Projects

- Con Edison utility meter (whether new or existing) can be located anywhere the utility company requests (i.e. above or below DFE)
- Any new meter, from solar company, and any other new equipment must be located above the DFE (Design Flood Elevation). Existing equipment may remain in current location.
- The AC disconnect switch may be located below the DFE and must be readily accessible per NEC article 100. The Center Line of the operation handle, when it is in the highest position can not be more than 2.0 m (6'-7") above ground floor or working platform.



Ballast Projects

As per 1 RCNY 105-02 (e)(ii)(f):

- Currently, ballasted systems are prohibited for installations one hundred (100) feet or higher above grade.
- For rooftop installations less than one hundred (100) feet above grade and grade-level installations, ballast must be fully contained and must comply with requirements for aggregate in chapter 15 of the New York Building Code.







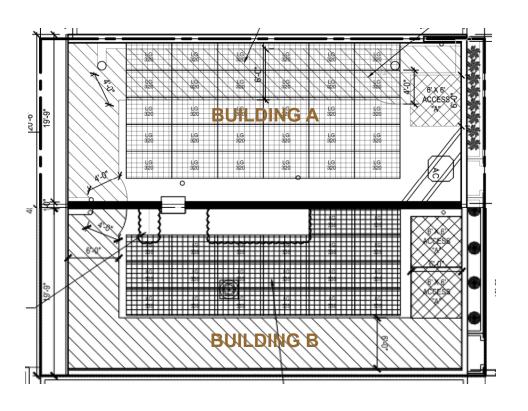
Carport Projects

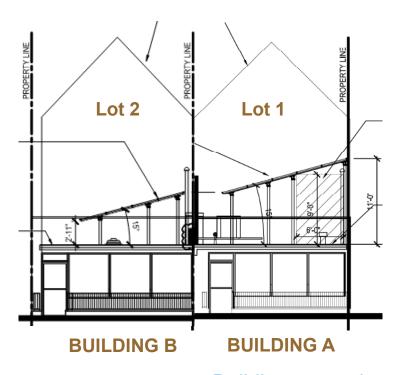
- Projects are being filed for solar panels on top of both existing and new carports.
- If the installation is on the roof of an existing carport, only a Solar application must be filed.
- Solar canopy located over any accessory off-street parking space can be filed as a Solar application on DOBNOW.





Projects that use adjacent building for solar installation.





Building to receive tax abatement.



Projects that use adjacent building for solar installation.

 Two buildings / two lots. Solar panels are being installed on both buildings to create one system. However, only one building's is going to receive the solar energy and the tax abatement.

Building A on Lot 1 has solar panels constructed on its roof and feed into the building's main meter. Building A is going to receive the solar energy and the tax abatement.

Building B on Lot 2 has solar panels constructed on its roof that are tied into the system feeding Building A. Building B will not receive solar power generated by these panels nor receive tax abatement.

Let's look at the scenario and discuss how to file.



Projects that use adjacent building for solar installation.

Applicant to file two (2) applications as follow:

Application for **Building A** is to be filed as a **Solar – Tax** application as it is the building where the solar energy system is being tied to the building's meter and is going to receive both the energy and the tax abatement. Applicant to follow all the requirements for a solar tax application as outlined in the beginning sections of this presentation. <u>Under Comment section of the PW1 - Reference Building B application number.</u>

NOTE: The Cost Affidavit(PW3) and Tax Abatement should include the costs of the **ENTIRE** system on both Building A and Building B.

Application for **Building B** is to be filed as a **Solar** (non-PTA) application as there is construction work being provided, but no tax abatement being pursued. Applicant to follow all the requirements for a solar non-tax abatement application as outlined in the beginning sections of this presentation. <u>Under Comment section of the PW1 - Reference Building A application number and provide the following note:</u>

Installation of Solar Energy System on Roof. No change of Use, Egress or Occupancy. Work is being paid for under Job #XXXXXXXXX (App # for Building A)



Projects that use adjacent building for solar installation.

The PW3 for Building B can be \$1.00.

If the buildings are owned by the same owner, a <u>Restrictive Declaration</u> must be filed between the buildings. If the buildings are owned by separate owners, an <u>Easement</u> must be filed between the buildings.

Per FDNY regulations, each building must have a dedicated fire access landing and path per FC 504.4.

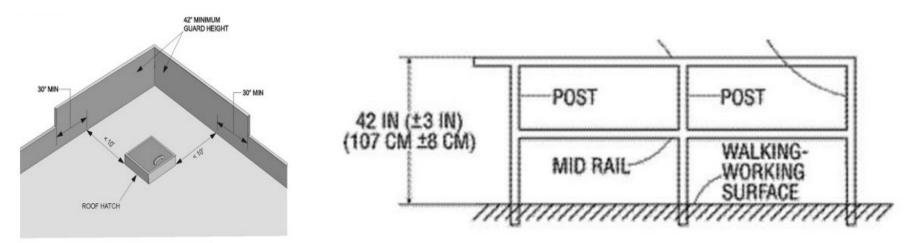
Guard Rails



Guards for Solar panel maintenance per 2022 BC 1015.6

2022 BC 1015.6 Mechanical equipment, systems and devices. Guards shall be provided where various components that require service are located within 10 feet (3048 mm) of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches (762 mm) above the floor, roof or grade below.

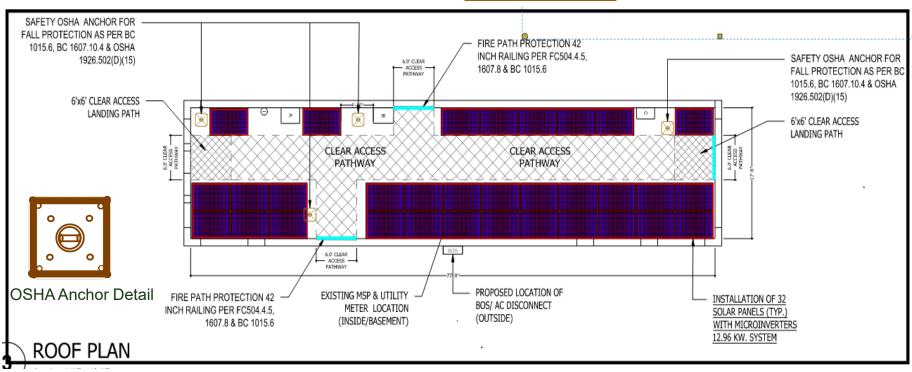
Railings required along FDNY perimeter access must be designed in accordance with the FDNY requirements.



Guard Rails



Sample roof top with OSHA fall protection Anchors for trained maintenance workers. Refer to <u>BB2023-008</u> for more details.





THANK YOU

