

NYC Solar Permitting Process Guide

Sustainable CUNY of the City University of New York (CUNY) worked with the NYC Department of Buildings (DOB), which issues work permits for solar installations in the 5 boroughs, to provide this comprehensive guide that solar PV installers will need in order to navigate the permitting process. The initial effort in 2016 to develop the guide was supported by the U.S. Department of Energy as well the NY-Sun Initiative, with link updates provided by Sustainable CUNY in 2022.

NYC requires both a construction and an electrical work permit to perform a solar PV installation. A plumbing work permit is required on solar thermal projects in lieu of the electrical permit. This guide begins with the steps for a construction permit, and then covers electrical in later steps. Projects may be filed as part of another New Building or Alteration permit application if other construction work is happening at the same time on the property except when applying for the [Solar Property Tax Abatement \(PTA\)](#). (NYC currently offers a 20% PTA to building owners for installing solar PV systems. Building owners entering into a lease or Power Purchase Agreement do qualify for the PTA, but solar thermal systems do not). Solar permit applications are most commonly filed separately as an Alteration Type 2.

Step 1: Determine if your building requires an asbestos investigation

NYC has a code requirement that buildings must be inspected for asbestos in the areas construction work will take place. In order to receive a construction permit, the DOB requires a form approved by the Department of Environmental Protection (DEP) stating this took place unless exemption is selected on the PW1 permit application for DOB.

- A) If your building was constructed per plans approved on or after April 1, 1987, your project is exempt from asbestos inspections and fees (skip to Step 3). The below option may be selected on the PW1 application.

The scope of work is exempt from the asbestos requirement as defined in the regulations promulgated by the NYC DEP (15 RCNY 1-23(b)) or is an alteration to a building constructed pursuant to plans submitted for approval on or after April 1, 1987, in accordance with § 28-106.1 - No fee

- B) If not, a Special Asbestos Investigator completes an investigation to determine if asbestos containing material (ACM) exists in the work area.
- List of [Certified Asbestos Investigators](#)
 - See [Title 15, Chapter 1 Rules of the City of New York](#)
 - See additional information on [Department of Environmental Protection's website](#)


Step 2: Special Asbestos Investigator completes survey report

After the investigation, the Special Asbestos Investigator will submit a survey report through DEP's online [Asbestos Reporting and Tracking System](#) (ARTS) and pay the fees. In addition to the DEP submission in ARTS, an ACP5 or ACP21 form with a DEP approved seal will be issued, and will be required for submission with the solar construction permit application to DOB in Step 7.

- A) If asbestos containing material exists in less than 25 linear square feet of the work area, the **ACP5** form is completed in ARTS. This is most common. The below option may be selected on the PW1 application.

The scope of the work is not an asbestos project as defined in the regulations of the NYC DEP. DEP Control # is required - Pay directly to DEP.

On the PW1 application, applicant should include the DEP ACP-5 Control Number. The Certificate Number, which is the Certified Asbestos Investigator's Certificate Number that starts with a 1 at the bottom of the ACP5 page, is required at the time of upload.

I hereby declare the information provided herein is true and complete			
<i>Jane Doe</i>	2/3/2011	12345	8/3/2012
DEP Certified Asbestos Investigator's Signature	Date	Certificate Number	Expiration Date
Tel. # _____	Fax # _____	Email _____	_____
<p>The investigator shall assume that some or all of the areas investigated contain ACM, and for each area that is not assumed to contain ACM, collect and submit for analysis bulk samples in accordance with §§ 1-36, 1-37, and 1-44 of the DEP Asbestos Rules and EPA publications 560/5-85-024 and 560/5-85-030a and 40 CFR 763.86.</p>			<p>SEAL OF THE NYC DEP CERTIFIED ASBESTOS INVESTIGATOR</p> 

- B) If asbestos must be removed, the ACP7 form is completed in ARTS. Then, a [Certified Asbestos Handler](#) must remove it. An ACP21 form would be issued and sealed by DEP after removal. The below option may be selected on the PW1 permit application.

The scope of work requires related asbestos abatement as defined in the regulations of the NYC Department of Environmental Protection (DEP) - Pay directly to DEP

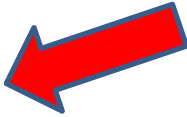
Step 3: Enroll for an Account on the Development Hub e-filing website

The Development Hub's [eFiling system](#) is used to electronically submit solar construction applications. Enroll for an Account, if you have not done so already. Then, login and select "Minor Construction."

Anyone may create an account and prepare the permit application. Only a NYS Registered Architect or Professional Engineer's account will be able to officially submit the application to DOB for review. The Licensed Professional must also sign most of the forms and the plans. The Licensed Professional is listed as the 'Applicant.'

Welcome to eFiling

DOB NOW will be released in phases over the coming years. During the transition, users will create and maintain their login and password through eFiling. See the [Account FAQs](#) for more information.

Email Address: <input type="text"/> Password: <input type="password"/> <input type="button" value="Login"/>		Forgot your password? Click here to reset it
<input type="button" value="Register for electronic filing."/>		
Major Construction Development Hub <ul style="list-style-type: none"> Major Alterations New Buildings Demolitions	Other Filings Hub Full-Service <ul style="list-style-type: none"> Standard Plan or Professional Certification of Objections (NB, Alt1, Alt2, Alt3) Hub Self-Service <ul style="list-style-type: none"> Professionally Certified Applications (NB, Alt1, Alt2, Alt3) 	
Express Cashier Payments PAA Fees Records Management Fees Temporary Certificate of Occupancy Fees Other Fees	Manage Your Account Add License Type Add Sustainable Contractor Designation	

Step 4: Determine if you are filing Hub Full-Service or Hub Self-Service

- A) Hub Full-Service is used to request a standard plan exam review from DOB.
- B) Hub Self-Service is used when a licensed professional (PE/RA) is certifying the application; plans are in compliance with all applicable requirements, forgo the DOB plan exam review. These jobs are subject to an audit by DOB.
- C) Professional Certification of Objections is a hybrid of A & B, but falls under Hub Full-Service. It means you are requesting an initial plan review, but if objections are issued by the plan examiner, the licensed professional will certify the corrections made to the objections and forgo a 2nd DOB plan review.

All three filing options can mark Yes to **Directive 14**, which means the licensed professional will certify the building inspection and you will not have to schedule one with DOB.

*Is Directive 14 Acceptance Requested? Yes No

*The applicant certifies that the construction documents submitted and all construction documents related to this application do not require a new or amended Certificate of Occupancy as there is no change in use, exists or occupancy. Yes No

*Review is requested under which Building Code? 2014 2008 1968 Prior to 1968

***As of January 1, 2016, the DOB accepts solar jobs applying for the Property Tax Abatement (PTA) that meet the following criteria: i) Produce a maximum of 10 kilowatts of power; ii) Are installed on one or two family homes; and iii) Are installed on pitched roofs with a slope greater than a twenty degrees. PTA jobs must select Directive 14, but a PTA building inspection is still required. For more info see [NYC PTA](#) and [DOB's Solar FAQs](#). Leased, financed, and Power Purchase Agreement solar contracts also qualify for the PTA.**

All PTA jobs must be filed online. Applicants that are NOT applying for the PTA may file online using one of the three ways listed above or in-person at a Borough Office. Online permit applications are encouraged, and covered in this guide.

Step 5: Create an online permit application

After logging into the Development Hub website, create a new application by selecting Hub Full-Service or Hub Self-Service. Then, select 'Begin New Job Application.' You will be prompted to answer all of the questions on a PW1 form. After the questions have been answered, the e-filing system will automatically generate your completed PW1 form.

Step 6: Complete Permit Application Fields

Follow these User Guides to complete the application. These are also located on the login page of the e-filing system.

[Hub Full-Service User Guide](#)

[Hub Self-Service User Guide](#)

Tips on Completing the Online Permit Application

Additional information for completing the Online Permit Application can be found on DOB's [PW1 User Guide](#).

Tip 1: Many of the specific address and site characteristic information to answer the electronic questions can be found on [ZoLa](#) (Zoning and Land Use Map) or [BIS](#) (Buildings Information Systems) on the property's BIN page.

BIN Page Example

Property Profile Overview Page Example

NYC Department of Buildings			
Property Profile Overview			
207 GRAND STREET		BROOKLYN 11211	
GRAND STREET 207 - 217		Health Area 400	BHF# 3396706
		Census Tract 553	Tax Block 2381
		Community Board 301	Tax Lot 14
		Buildings on Lot 1	Condo NO
			Vacant NO
View DCP Addresses... Browse Block			
View Zoning Documents View Challenge Results Pre-BIS PA View Certificates of Occupancy			
Cross Street(s):	BEDFORD AVENUE, DRIGGS AVENUE		
DOB Special Place Name:	DM SIO REQ#301168714		
DOB Building Remarks:	PREVIOUSLY 207 GRAND ST & 184 NORTH 1 ST. LOTS 14,15,16 MERGED INTO LOT 14(10/10)		
Landmark Status:	Special Status:	N/A	
Local Law:	Loft Law:	NO	
SRO Restricted:	TA Restricted:	NO	
UB Restricted:	Grandfathered Sign:	NO	
Environmental Restrictions:	City Owned:	NO	
Legal Adult Use:	NO		
Additional BIDs for Building:	3062642		
Additional Designation(s):	GW - GREENPOINT-WILLIAMSBURG ANTI-HARASSMENT		
Special District:	UNKNOWN		
This property is not located in an area that may be affected by Tidal Wetlands, Freshwater Wetlands, or Coastal Erosion Hazard Area. Click here for more information			
Department of Finance Building Classification:	JB-THEATRES		
Please Note: The Department of Finance's building classification information shows a building's tax status, which may not be the same as the legal use of the structure. To determine the legal use of a structure, research the records of the Department of Buildings.			
	Total	Open	Elevator Records
Complaints	5	1	Electrical Applications
Violations-DOB	2	0	Permits In Process / Issued
Violations-ECB (DOB)	4	0	Illuminated Signs Annual Permits
Jobs/Filings	36		Plumbing Inspections
ARA / LAA Jobs	0		Open Plumbing Jobs / Work Types
Total Jobs	36		Escalator
Actions	8		Marquee Annual Permits
OR Enter Action Type:			Boiler Records
OR Select from List:	Select		DEP Boiler Information
AND	Show Actions		Crane Information
			After Hours Variance Permits

Check BIS for answers
to the Site Characteristic
questions on the PW1

Site Characteristics <small>(show help for this section)</small>	
*Is the site in Tidal Wetlands?	<input type="radio"/> Yes <input type="radio"/> No
*Is the site in Fresh Water Wetlands?	<input type="radio"/> Yes <input type="radio"/> No
*Is the site in a Coastal Erosion Hazard Area?	<input type="radio"/> Yes <input checked="" type="radio"/> No
*Is this site part of Urban Renewal?	<input type="radio"/> Yes <input type="radio"/> No
*Is the site in a Special Fire District?	<input type="radio"/> Yes <input type="radio"/> No
*Is the site in a Flood Hazard Area?	<input type="radio"/> Yes <input type="radio"/> No


Tip 2: If applying for the PTA, select 'Other – Solar (Tax Abatement)' for the Work Type. If not applying for the PTA, select 'Other' twice; once from the check box and once from the drop down list. Then, enter 'SOLAR' in the description box.

Solar (Tax Abatement)

Work Types *(show help for this section)*

*Check only those work types submitted at this time.
 Note: Selecting or unselecting Plumbing, Standpipe & Sprinkler will change previously entered Schedule B information.
 ** If Fire Alarm is selected, no other selections are allowed.

Boiler Fuel Burning Fuel Storage Fire Suppression Fire Alarm **
 Plumbing Standpipe Sprinkler Mechanical
 Construction Equipment Other **Solar (Tax Abatement)**




Other - SOLAR

Work Types *(show help for this section)*

*Check only those work types submitted at this time.
 Note: Selecting or unselecting Plumbing, Standpipe & Sprinkler will change previously entered Schedule B information.
 ** If Fire Alarm is selected, no other selections are allowed.

Boiler Fuel Burning Fuel Storage Fire Suppression Fire Alarm **
 Plumbing Standpipe Sprinkler Mechanical
 Construction Equipment Other **Other** *Description **SOLAR**



Tip 3: All solar projects are Alteration 2 job types. Alt-2 is an alteration which does not require an amended C/O (Certificate of Occupancy), but includes multiple work types, such as electrical and construction.

* **Job/Project Type**

Pick a Job/Project Type

- Pick a Job/Project Type
- New Buildings
- Alteration 1
- Alteration 2**
- Alteration 3
- Full Demolitions
- Signs
- Subdivision Improved Property
- Subdivision Condominiums

Tip 4: NYC Energy Conservation Code – Solar jobs cannot mark exemption to the NYCECC, because penetrations are being made in the roof and/or walls. In addition to answering these questions, the 1st page of the plan set should have a tabular energy analysis listed. The charts on this page are examples of how to complete the tabular analysis on the plans. Please read these codes: [RCNY 5000-01](#) & [NYC Energy Conservation Code](#)

Energy Conservation Construction Code of NYC Compliance *(show help for this section)*

*To the best of my knowledge, belief and professional judgement, all the work this application is in compliance with the NYCECC.

Yes Exempt (DOB may require supporting analysis and documentation)

*Was the Energy analysis submitted on another job number? Yes No

*Is this application part of a project that utilizes trade-offs among different major systems? Yes No

*Is this application utilizing trade-offs within a single major system? Yes No

How to Comply with NYCECC on Architectural Plans

First, determine if your building is considered residential or commercial per the definitions in the NYCECC. Then, include the appropriate Residential or Commercial statement on the first page of the plans.

NYCECC Residential Definition:

RESIDENTIAL BUILDING. For this code, includes the following:

1. Detached one-family dwellings having not more than three stories above grade plane;
2. Detached two-family dwellings having not more than three stories above grade plane;
3. Buildings that (i) consist of three or more attached townhouse units and (ii) have not more than three stories above grade plane;
4. Buildings that (i) are classified in accordance with Chapter 3 of the *Building Code of New York State* in Group R-2, R-3 or R-4 and (ii) have not more than three stories above grade plane;
5. Factory manufactured homes (as defined in Section 372(8) of the *New York State Executive Law*); and
6. Mobile homes (as defined in Section 372(13) of the *New York State Executive Law*).

For the purposes of this definition of the term "Residential building," the term "Townhouse unit" means a single-family dwelling unit constructed in a group of three or more attached units

2020 NYCECC Commercial Definition

COMMERCIAL BUILDING. For this code, all buildings that are not included in the definition of "Residential building."

GROUP R BUILDINGS. Are commercial buildings for the purposes of this code when used as described in the *Building Code* (Section 310) of New York State as R-1 uses (eg., transient hotels) or any of the following building uses when over 3 stories in height: R-2 (eg., apartment building or dormitory use), R-3 or R-4.

NYCECC Architectural Plan Statement for **RESIDENTIAL** Buildings

ENERGY ANALYSIS AND PROGRESS INSPECTIONS FOR RESIDENTIAL SOLAR TAX ABATEMENTS				
APPLICATION TYPE: ALT-2		SCOPE OF WORK: SOLAR ELECTRIC ARRAY INSTALLATION		
CLIMATE ZONE: 4A		2014 NYCECC CHAPTER 4 (RESIDENTIAL ENERGY EFFICIENCY)		
To the best of my knowledge, belief and professional judgment, all work under this application is in compliance with the NYCECC.				
ITEM DESCRIPTION	PROPOSED VALUE	PRESCRIPTIVE VALUE AND CITATION	SUPPORTING DOCUMENTATION	
Anchor solar electric supporting structure to building structure by screwing to structural members, as shown on drawings	Sealing all openings and penetrations as prescribed in section ECC 402.4.1 and ECC Table 402.4.2.	Caulking, gasketing, weatherstripping or other material in accordance with section ECC 402.4.1.	(List the drawing page number and/or section title) Example, "S100.0-Solar Panel Mount Detail"	
	INSPECTION / TEST	FREQUENCY (MINIMUM)	REFERENCE STANDARD	ECC OR OTHER CITATION
IA6	Air sealing and insulation – visual inspection: Openings and penetrations in the building envelope, including site-built fenestration and doors, shall be visually inspected to verify that they are properly sealed, in accordance with Table 402.4.2.	As required during envelope construction	Approved construction documents; ASTM E283; ASTM E84; RCNYS	402.4.1, 402.4.2.2

NYCECC Architectural Plan Requirements for **COMMERCIAL** Buildings

ENERGY ANALYSIS AND PROGRESS INSPECTIONS FOR COMMERCIAL SOLAR TAX ABATEMENTS				
APPLICATION TYPE: ALT-2		SCOPE OF WORK: SOLAR ELECTRIC ARRAY INSTALLATION		
CLIMATE ZONE: 4A		2014 NYCECC CHAPTER C4 (COMMERCIAL ENERGY EFFICIENCY)		
To the best of my knowledge, belief and professional judgment, all work under this application is in compliance with the NYCECC.				
ITEM DESCRIPTION	PROPOSED VALUE	PRESCRIPTIVE VALUE AND CITATION	SUPPORTING DOCUMENTATION	
Anchor solar electric supporting structure to building structure by screwing to structural members, as shown on drawings	Sealing all openings and penetrations as prescribed in section ECC C402.4.2.	Caulking, gasketing, weatherstripping or other material in accordance with section ECC C402.4.2.	<i>(List the drawing page number and/or section title) Example, "S100.0-Solar Panel Mount Detail"</i>	
	INSPECTION / TEST	FREQUENCY (MINIMUM)	REFERENCE STANDARD	ECC OR OTHER CITATION
IIA6	<p>Air sealing and insulation – visual inspection: Openings and penetrations in the building envelope, including site-built fenestration and doors, shall be visually inspected to verify that a continuous air barrier around the envelope forms an air-tight enclosure.</p> <p>The progress inspector shall visually inspect to verify that materials and/or assemblies have been tested and meet the requirements of the respective standards, or that the building is tested and meets the requirements of the standard, in accordance with the standard(s) cited in the approved plans.</p>	As required during construction	Approved construction documents; ASTM E2178, ASTM E2357, ASTM E1677, ASTM E779, ASTM E283.	C402.4; ASHRAE 90.1 – 5.4.3.1

Tip 5: For all Professional Certification of Objections jobs including PTA applications, state in the comments section “The filed application is complete as required in Item 1 above. I will self-certify the removal of all objections to be issued on this application.” Refer to [TPPN #1/01](#) for filing professional certification of objections.

For all Professionally Certified Jobs, also known as Self-Service, the applicant must state in the Comments that the job will be professionally certified, and reference the applicant’s and owner’s certifications on Form POC1. Refer to [OPPN 1/04](#) for filing Professional Certification.

Plan/Work Application

Job Info | Work Types | Considerations | Bldg Info | **Comments**
Validate

ALTERATION 2 - INIT

User Ref ID : TEST
DOB Reference Number : T00001178566

Comments (show help for this section)

Provide comments on this application here (maximum limit: 1000 characters). Place additional comments on an AI1 form. For Professional Certification statements refer to [OPPN 1/04](#), for Professional Certification of Objections statements refer to [TPPN 1/01](#). According to these PPNs, in most cases the entire statement language is not required to be placed in the comments section of the PW1.

The filed application is complete as required in Item 1 above. I will self-certify the removal of all objections to be issued on this application.

Step 7: Create Architectural & Electrical Plans

- Follow DOB [Drawing Standards](#) and [Plan Examination Guidelines](#). It is very important to follow the drawing standards and guidelines to facilitate the fastest plan examiner processing possible considering the number and different types of applications received in NYC.
- All pages must be stamped by a NYS Registered Architect or Professional Engineer except for the Electrical Diagram.
- Electrical Diagrams are only required on solar PTA jobs
- Site plan indicating Fire Department access per Fire Code requirements, existing and proposed equipment, North arrow, distance to street, Dimension of lot, dimension to property line Block/Lot Adjacent buildings (if attached/semi-detached), Building height/stories, Trees, utility poles – or other falling hazards
- Elevation views must be shown to demonstrate compliance with zoning
- Detail drawings showing racking connections and anchorage
- Include notes for Tenant Protection Plan if building will be occupied during construction, tabular Energy Code Analysis, Wind Load, Structural Calculations, and list who is responsible for Special Inspections.
- Numerous dimensions are required to confirm compliance with zoning and fire codes
- Zoning height/setback diagram if panels are proposed to be elevated over 4’ high or provide a note stating, “The solar system installation complies with ZR 23-62(m) [residential] or ZR 23-42(n)(1) [commercial].

Step 7A: Make sure your application is in compliance with the NYC Fire Code Chapter 5.

Applicants are responsible for ensuring the proposed solar application is in compliance with the Fire Code, to be verified by the DOB plan examiners. All required clear paths must be shown with dimensions and drawn to scale. All required markings/placards must also be shown on the plans. FDNY has set restrictions to solar arrays in the 5 boroughs of NYC under NYC Fire Code [Chapter 5 Section 504 & 512](#).

Summary of the Fire Code for rooftop PV installations:

- 1) Buildings under 100 feet tall with a roof slope **over 20 degrees** must provide a 3 foot clear path along the ridgeline of each roof (not the sides or the bottom)
- 2) Buildings under 100 feet tall with a roof slope **20 degrees and under** must provide a 6 foot wide and 9 feet tall clear path from front to back and side to side. There also must be a 6'x6' clear path landing zone every 12 feet of frontage space (street facing side of the roof). 3' wide access must be provided around scuttles, skylights, fire escapes, and ladders. A 6' wide clear radius is required around roof doors. Fences in clear path are allowed but must provide a gate.
- 3) There are also specific requirements on conduit runs and labeling

Additional Resources:

- [NYC FDNY Technology Management](#)
- If you would like to request a variance of the Fire Code for your project, you may file an application [online](#). It is possible to reduce the 6' clear path requirement on 'flat roofs' to 3 feet in some circumstances. Exceptions to the 3' clear path from the ridge on 'sloped roofs' are unlikely.
- If FDNY approves your variance request, they will issue an approval letter and you must submit it to DOB with the online application.
- [FDNY 2014/2022 Cross Reference Table and FDNY 2022 Highlight Summary](#)

Step 8: Upload Documentation

Upload all [required forms](#).

- PW1 - Plan/Work Approval (automatically uploaded online)
- AOS1 - Professional/Owner Signature for Hub Full-Service
 - For Self-Service use POC1
- PW2 - Work Permit Application
- PW3 - Cost Estimate
- EF1 - E-filing Job Application Cover Sheet (automatically uploaded online)
- TR1 - Technical Report: Statement of Responsibility
- TR8 - Technical Report: Statement of Responsibility for Energy Code Progress Inspections
- Asbestos Abatement Form (ACP5, ACP21, or not applicable)
- PTA4 - Property Tax Abatement (PTA only)
- Architectural Plans & Electrical Diagram - See Step 7
- FDNY Variance Approval Letter (if needed, required if solar design or existing building does not comply with 2014 NYC Fire Code)
- Landmark Commission Approval (if needed, required on landmark buildings and historical districts)

Landmarks or Historic Districts – If the property is a Landmark or located in a designated Historic District, you will need to receive a permit from the [NYC Landmarks Preservation Commission](#) (LPC) prior to submitting the DOB permit application. The approved [LPC Application Form](#) must be submitted to DOB during the initial filing. The BIN page in BIS can be used to determine if the property is a landmark. LPC offers a [permit application guide](#), where solar is covered in Chapter 2, “Rear Yard and Rooftop Additions.” Therein, there is an application checklist.

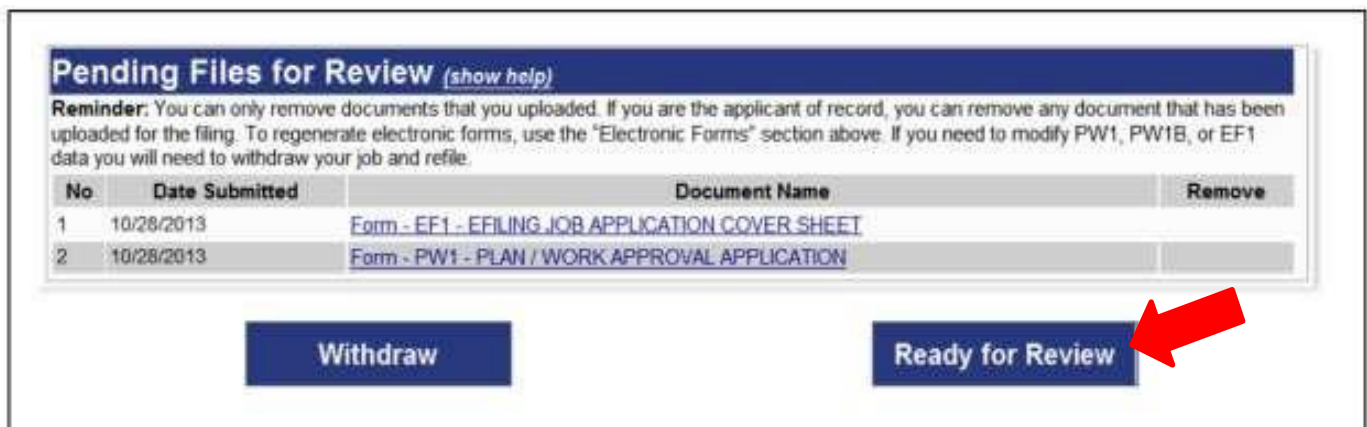
Historically, LPC has approved more the 50 solar installations. Most approvals have been for non-visible solar installations, and some have been for minimally-visible installations. Solar panels are included in [RCNY Title 63, Chapter 2](#). Section 19 in the definition of “mechanical equipment” and in the phrase “minimally-visible.” Minimally visible is defined as: “any rooftop addition which when viewed from any public thoroughfare, projects into the maximum line of sight from such public thoroughfare by not more than 12 inches in height, or, due to its placement and size does not call attention to itself nor detract from any significant architectural features.”

Step 9: Pay Permitting Fees Electronically

Please see the [DOB User Guides](#) for guidance on paying fees in the online system.

Step 10: Submit Application to DOB

Submit the application through the Development Hub e-filing system and receive a plan exam review. Anyone can create an e-filing account and start applications. In Hub Full-Service anyone can select the ‘Ready for Review’ button. In Hub Self-Service applications, only the NYS Professional Engineer or Registered Architect’s account will be able to select the ‘Ready for Review’ button because they are professionally certifying instead of receiving a plan review.



Pending Files for Review [\(show help\)](#)

Reminder: You can only remove documents that you uploaded. If you are the applicant of record, you can remove any document that has been uploaded for the filing. To regenerate electronic forms, use the “Electronic Forms” section above. If you need to modify PW1, PW1B, or EF1 data you will need to withdraw your job and refile.

No	Date Submitted	Document Name	Remove
1	10/28/2013	Form - EF1 - EFILING JOB APPLICATION COVER SHEET	
2	10/28/2013	Form - PW1 - PLAN / WORK APPROVAL APPLICATION	

Withdraw **Ready for Review**

Step 11: Plan Exam Review & Permit Issuance

A DOB Plan Examiner will issue Objections if there is anything wrong with your application. If the application is approved and all fees are paid, a Construction Work Permit will be issued. The work permit must be displayed on the job site during construction.

Example screenshot from BIS (Buildings Information System)

----- * OBJECTIONS SELF CERTIFIED * -----

Last Action: PERMIT ISSUED - ENTIRE JOB/WORK 11/05/2014 (R)
Application approved on: 11/02/2014

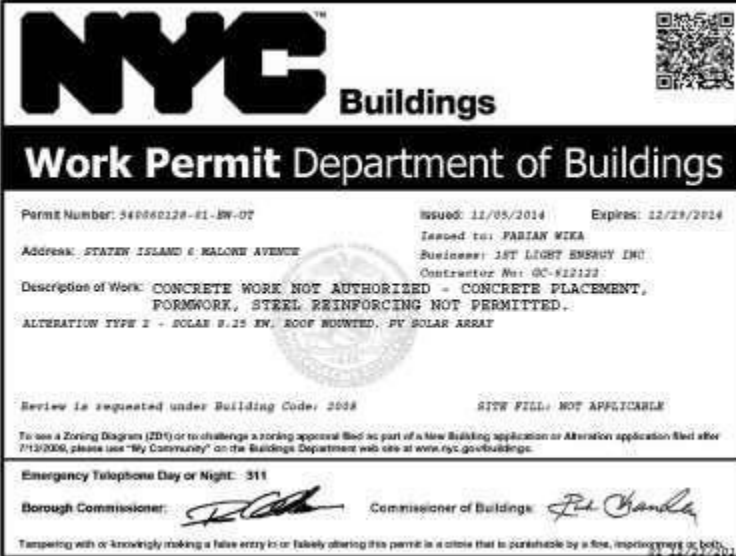
Pre-Filed: 10/01/2014 Building Type: 1, 2, or 3 Family Estimated Total Cost: \$43,460.00

Date Filed: 10/01/2014 Electronically Filed: Yes : Hub Full-Service

Fee Structure: STANDARD Build it Back: No

Review is requested under Building Code: 2008

Example Work Permit



NYC Buildings

Work Permit Department of Buildings

Permit Number: 540060228-01-BV-07 Issued: 11/05/2014 Expires: 12/29/2014

Address: STAYEN ISLAND & MALONE AVENUE Issued to: FARIAN WIKI

Description of Work: CONCRETE WORK NOT AUTHORIZED - CONCRETE PLACEMENT, FORMWORK, STEEL REINFORCING NOT PERMITTED. Business: 1ST LIGHT ENERGY INC

ALTERATION TYPE 2 - SOLAR P.25 EW, ROOF MOUNTED, PV SOLAR ARRAY Contractor No: GC-612122

Review is requested under Building Code: 2008 SITE FILL: NOT APPLICABLE

To see a Zoning Diagram (ZD) or to challenge a zoning approval filed as part of a New Building application or Alteration application filed after 7/1/2005, please use "My Community" on the Buildings Department web site at www.nyc.gov/buildings.

Emergency Telephone Day or Night: 311

Borough Commissioner: *[Signature]* Commissioner of Buildings: *[Signature]*

Tampering with or knowingly making a false entry in or falsely altering this permit is a crime that is punishable by a fine, imprisonment or both.

DP-3A (8/13)

Step 12: Plan Review Objections

If your plans are not approved, you will receive a list of objections from the plan examiner. You must resolve them on your plans, highlight with red circles what you changed, and upload an "[A11 – Additional Information](#)" form to document you fixed the requested items. The A11 should indicate all of the objections and a statement that they have been resolved next to each objection.

*For all PTA jobs filing Professional Certification, you must follow [TPPN #1/01](#). This includes guidelines on specific statements to include on the A11 and comments section of the PW1.

Step 13: Electrical Permit Application

Only a licensed NYC Master Electrician can create an Electrical Permit Application. This can also be done through the Development Hub e-filing system. The NYC Master Electrician must work for a NYC Registered Electrical Firm with the word ‘Electric’ in the business name per the NYC Electrical Code.

The ED16A form has been integrated online so no attachments or signatures are necessary. Alternatively, the Master Electrician may submit the paper form in the local borough office. If the job is over 1,000 kVA, Electrical Advisory Board approval is required. The Electrical Permit will be issued immediately. A plan review does not occur until the inspection.

Step 14: Complete Energy Code Progress Inspection (TR8/EN2) & Special Inspections (TR1)

An Energy Progress Inspection and Special Inspections will need to be completed prior to scheduling the construction inspection. The Energy Progress Inspection is often completed by the NYS PE/RA and the Special Inspections are completed by the Special Inspector listed on the TR1 or TR8. A NYS PE/RA can become a Special Inspector, but they cannot work directly for the General Contractor. They must work for their own firm and Special Inspection Agency as they are inspecting as a third party to the contractor.

Step 15: Electrical Inspection

As of December 2015, all inspections, including electrical inspections, must be scheduled online using “[Inspection Ready](#).” See DOB’s Inspection Ready [FAQ](#) and [resources](#), including videos and manuals. Inspection requests are no longer accepted in person, by phone or using the old online request portals. All requests must be made in Inspection Ready. Anyone may register for Inspection Ready. Licensees, Registered Architects, and Professional Engineers MUST register in order to take action in the system and request inspections.

During the inspection, make sure to have the approved set of plans from DOB’s construction application and copies of the equipment manufacturer’s specification sheets. Your project must pass the electrical inspection and receive electrical sign-off in BIS (Buildings Information System) before moving on to the next step.

For more information on what to expect during the inspection, please refer to the [Solar Inspection Fact Sheet](#).

Step 16: Submit Construction Sign-Off Documents

- A) If this is a PTA job, upload the documents online through the Development Hub. Then, email greenroofandsolar@buildings.nyc.gov to request a PTA inspection and construction sign-off review. After your construction sign-off forms are approved by the Development Hub, the “greenroofandsolar” team will notify the requestor with a reply email. The requestor or other general contractor representative must coordinate with the building owner for available days for the inspection unit to visit the site. Once the days are known, the permit holder must e-mail an inspection request to hubinspections@buildings.nyc.gov with either green roof or solar in the subject line. Upon receipt of your email, the inspection team will notify you of the date and time of inspection.

Please make sure a representative from the contractor is present, an approved set of plans are on site, and access is provided to the building/home in all areas work has occurred including the roof and inverters. If the inspection appointment must be canceled, please notify hubinspections@buildings.nyc.gov via e-mail at least

2 business days in advance of the appointment. For more information on what to expect during the inspection, please refer to the [Solar Inspection Fact Sheet](#).

- B) If this is not a PTA job, submit the sign-off documents in-person to the Borough Office and call or schedule the building inspection [online](#) (unless Directive 14 acceptance was requested). If Directive 14 was selected on the initial application, you do not need to schedule the building inspection but you do have to submit the documents in-person to the Borough Office.

Construction Inspection Appointments:

As of December 2015, all inspections, including construction inspections, must be scheduled online using “[Inspection Ready](#).” See DOB’s Inspection Ready [FAQ](#) and [resources](#), including videos and manuals. Inspection requests are no longer accepted in person, by phone or using the old online request portals. All requests must be made in Inspection Ready. Anyone may register for Inspection Ready. Licensees, Registered Architects, and Professional Engineers MUST register in order to take action in the system and request inspections.

Documents for submittal:

- a. PW7 - Letter of Completion Folder Review Request
- b. Final PW3 - Final Cost Estimate
- c. Final TR1 - Final Technical Report
- d. Final TR8 - Final Technical Report for Energy Code Progress Inspections
- e. EN2 – Energy Analysis
- f. Final PTA4 - Final Property Tax Abatement (PTA only)
- g. Utility letter of acceptance letter (PTA only)

Please be aware if items change in the field that are different than the approved plans, you will need to submit **As-Built Plans and an **AI1 Additional Information** form or a Post Approval Amendment (PAA). You will need your new plans and AI1/PAA form approved prior to scheduling the building inspection or the inspector will likely fail the project. The AI1 form is to be used for minor plan changes like relocating or adding/removing panels. If the new design protrudes into the Fire Code clear path, an AI1, new plans, and a FDNY variance approval letter must be submitted. PAA’s should be used if there is a change of Applicant or Filing Rep, change of Professional to a TR1 or TR8, or change of item selection to a TR1 or TR8. PAA’s require an additional fee and must be filed at the Borough office. AI1’s do not require an additional fee, and can be submitted online in the Development Hub.*

Step 17: Construction Sign-Off

Once the inspection is passed and sign-off documents approved, DOB staff will issue Construction Sign-Off in BIS. Your project is now complete. Until the job is signed-off, the owner will not be able to submit another building permit application.

Example Sign-Off Screenshot in BIS (Buildings Information System)

----- * OBJECTIONS SELF CERTIFIED * -----

Last Action: SIGNED OFF 12/08/2014 (X)

Application approved on: 04/29/2014

Additional Considerations

PTA Issuance

If this is a PTA job, DOB will notify the Department of Finance (DOF) that the property is eligible to receive the PTA once construction sign-off is issued. DOF will mail a letter to the property owner stating it has been approved. Construction Sign-Off must be requested by March 15th and received by May 15th in order for it to be applied to the building owner's taxes on July 1 of the same year.

Energy Storage Batteries

If you would like to install a battery system, Sustainable CUNY has created [The Energy Storage Systems Permitting and Interconnection Process Guide](#). See the Guide for a complete step-by-step breakdown. In summary, you will need to submit your project to FDNY's Technology Unit with a TM-1 application. You will also have to go through three DOB review boards including: [Sustainability Review Board](#), Innovation Review Board, and Electrical Advisory Board. They can review applications for the specific battery type and model to be used across NYC or on a project by project basis. Only after your project is approved by all four boards, may you submit the construction and electrical permit applications described in this guide.

Wetlands

If the Tidal Wetlands, Freshwater Wetlands, or Coastal Erosion Hazard Map Check areas are marked Yes on the properties BIN page in BIS, then...

This property is located in an area that may be affected by the following:

Tidal Wetlands Map Check:	Yes
Freshwater Wetlands Map Check:	No
Coastal Erosion Hazard Area Map Check:	Yes
Special Flood Hazard Area Check:	Yes

You must:

- 1) Check the [appropriate maps](#) to see if your property is in the flagged areas.
- 2) Submit a copy of the map as "Supporting Documentation" in the Hub system
- 3) Put a statement on the plans stating either:
 - a. "I certify this property **is not** in a Freshwater Wetlands, Tidal Wetlands, or Coastal Erosion Hazard area."

OR

- b. "I certify this property **is** in a Freshwater Wetlands, Tidal Wetlands, or Coastal Erosion Hazard area, but the category of work does not require compliance with LL 21/09."

A solar installation is not in the category of work that requires a Department of Environmental Conservation permit according to [Local Law 21/09](#) unless you are doing construction in the ground like trenching for conduit or digging for ground mount footings. Reference Buildings [Bulletin 2009-012](#)

Special Flood Hazard Area Requirements and Exception for Solar

Background

If a property is in a special flood hazard area, any development at that property must comply with Appendix G of the NYC Building Code (BC). Appendix G requires new residential buildings and residential buildings that are either substantially improved or substantially damaged to have its lowest floor and attendant utilities raised above the design flood elevation (DFE). New or substantially improved/damaged non-residential buildings may either dry floodproof by implementing measures and building features to prevent flood waters from penetrating into spaces below DFE or wet floodproof in accordance with the requirements for residential buildings.

Additionally, unless otherwise allowed as part of dry floodproofing, Appendix G prohibits newly installed utilities from being located below the DFE in an existing building where such equipment did not previously exist as such an installation is deemed an “increase in the degree of noncompliance.” Therefore, all new equipment must be installed above the DFE or be constructed so as to prevent water from entering and accumulating during a flood. For solar applications, the AC disconnect and conduit leading to the AC disconnect are permitted to be installed below the DFE at a readily accessible location to comply with section EC 690.14(C)(1) of the current New York City Electrical Code (EC).

Summary

Solar applications in Special Flood Hazard Areas must follow the requirements of Appendix G as outlined below:

- Where construction costs exceed the greater of \$40,000 or 25% of the market value of the structure, the applicant shall provide a substantial improvement calculation and documentation per 1-RCNY 3606-01 to ensure that the building is not being substantially improved. Where construction costs exceed 50% of the market value of the structure, the work shall be considered a substantial improvement and the building shall comply with all requirements of Appendix G as if it were newly constructed.
- Applicants shall include in every alteration the statement, *“Work proposed in this application (is/is not) included in a substantial improvement as defined by Section BC G201.2 and 1 RCNY 3606-01.”*
- The permit application shall include a plot/site plan as required for all applications.
- The permit application shall include a statement noting the base flood and design flood elevations. For example, *“The BFE for 18 Balfour Street is 12NAVD88 and the DFE is 14NAVD88.”* The BFE is determined by reviewing both the effective FEMA [Flood Insurance Rate Map](#) (FIRM) and [Preliminary Flood Insurance Rate Map](#) (PFIRM), and using whichever is more restrictive. The DFE is determined in Table 7-1 of Appendix G.
- Where equipment other than the AC disconnect is to be installed **below the roof level**, the applicant shall submit the following:
 - o Architectural drawings with elevation dimensions that show all equipment other than the AC disconnect are located above the DFE.
 - o A site survey or elevation certificate stamped by a NY Licensed Surveyor.

(Site surveys or elevation certificates that are older than 1 year, require a professional statement and seal by the applicant of record on an AI1 Additional Information form stating, *“I certify, to the best of my knowledge, belief and professional judgment, the site survey is consistent with current*

conditions on the site.”)

- Where equipment other than the AC disconnect is to be installed **on the roof**, the applicant shall include a utility certification on the plans stating the following:
 - o *“I certify, to the best of my knowledge, belief and professional judgment, all work under this application is installed above the design flood elevation in accordance with Appendix G of the NYC Building Code except for the AC disconnect and conduit connecting to the AC disconnect.”*
- Complete a special inspection for Flood Zone Compliance on the TR1 as per BCG 105.2.

*This exception was approved by the NYC Department of Buildings on August 27th, 2015.

Cutting Pipes/Vent Stacks

Plumbing Code 904.1 – *Roof extension: All open vent pipes that extend through a roof shall be terminated at least 24 inches (610 mm) above the roof, except that where a roof is to be used for any purpose other than weather protection or maintenance, the vent extensions shall be run at least 7 feet (2134 mm) above the roof. Approved vandal-resistant vent caps may be used.*

Vents may be cut to 24 inches above the roof as long as no one will be going up on the roof except for maintenance. Cutting of the pipe must be completed by a licensed NYC Plumber with a plumbing work permit.

Permit Expiration Dates & Renewal Process

Permits expire one year from the date the permit was issued; or the expiration date of the General Contractor’s general liability insurance policy provided to the Department’s Licensing Unit, whichever is earlier. So, it’s almost always when the GC’s insurance will expire. Please be aware of this and keep your insurance up to date with the DOB Licensing Unit. If you pull a permit a week before your expiration date, it will likely only be active for one week.

To renew permits, you can do this [online](#) through the Development Hub or by going in-person to the borough office. Permits and/or After-Hours Variances cannot be renewed online if:

- The scope of work has changed
- The tradesperson or contractor is no longer in good standing with the Department
- There is an issue with the application

To renew online, you must create a Development Hub account using the exact same information on the General Contractor’s License. The Licensee Name, Business Name, Phone Number, Email, Contractor ID, etc. must match exactly or you will not be able to find your applications. Solar Company, Inc vs Solar Company will not work.

If your account is not created properly, you will see this view:



If your account is created properly, you will be able to search for your BIS job numbers. Follow pages 13-16 of this [e-filing guide](#) for steps.

Removing/Sealing Hatches

Regarding installing solar panels on top of or near a sealed hatch that is no longer in use (*NYC Fire Code 504.4.4*)

requiring 3' clearance around 3 sides of hatches and skylights), the following has been researched and determined in the codes to provide clarity to the solar industry, with approval of this language by the NYC DOB and FDNY.

- In order to remove/seal a hatch, the building must provide other means of access to the roof when required in the NYC Building Code or NYS Multiple Dwelling Law (*see references below for clarification*). If other means of access is provided or not required per these codes, the existing hatch must be maintained in 'good working order' per FC 107.1. Alternatively, the hatch could be completely removed which would require the removal of all ancillary equipment (ladder to roof, hatch cover, and other related features).
- If the hatch is removed and no longer exists, solar panels can now be installed on or near that portion of the roof. The area can also be used as part of any rooftop clear path requirements as it now looks and functions like all other accessible parts of the roof. If the hatch is not completely removed, 3' clearances per FC 504.4.4 must be provided. It is also considered unsafe and not to current fire code, if the hatch exists and is inoperable (FC 107.4.2 & FC 107.1). The building owner could receive a violation for this. If you wish to leave the hatch and reduce the 3' clear path requirements around 3 sides instead of completely removing the hatch, a variance application (TM-5) can be submitted to FDNY requesting this.

References for Removing Hatches

The Building Code roof access requirements that apply depends on the year the building was constructed. For example, a new building constructed today would have to comply with the 2014 Building Code section 1009.13 (see below excerpt). Older buildings would need to comply with the building code it was built under at that time (ex: 2008, 1968, 1938 versions). The New York State Multiple Dwelling Law also may apply with similar roof access and egress requirements.

“2014 BC 1009.13 Stairway to roof and roof access. In buildings four or more stories or more than 40 feet (12 192 mm) in height above grade, one stairway shall extend to the roof surface through a stairway bulkhead complying with Section 1509.2, unless the roof has a slope steeper than 20 degrees (0.35 rad). Access to setback roof areas may be through a door or window opening to the roof. Stairs terminating at the level of a setback shall provide access to the setback roof areas, except where the setback is less than 4 feet (1219 mm) in width and 10 feet (3048 mm) in length, measured from the inside of the parapet wall.

1009.13.1 Occupancy Groups I-1, R-1 and R-2. In buildings in Occupancy Groups I-1, R-1 and R-2 two stories or more in height, with roofs having a slope of 15 degrees (0.26 rad) or less, all interior stairs, except those terminating at the level of a setback roof, shall extend to the roof surface.

Exceptions:

1. In buildings in Occupancy Groups R-1 and R-2 two stories in height and in Occupancy Group R-2 three stories in height with not more than one dwelling unit per story, access to the roof shall be permitted to be a noncombustible roof hatch or trap door not less than 21 inches (533 mm) in width and 28 inches (711 mm) in length. Such hatches shall be located within the stair enclosure and be provided with a stationary, noncombustible access ladder or alternating tread device.
2. In buildings in Occupancy Group R-2 complying with Item 4 of Section 1021.2, roof access shall be governed by Item 4.6 of such section.”

BC 1009.13.2 Protection at roof hatch openings. Where the roof hatch opening providing the required access is located within 10 feet (3049 mm) of the roof edge, such roof access or roof edge shall be protected by guards installed in accordance with the provisions of Section 1013.”

“FC 107.1 Maintenance required. Whenever any device, equipment, system, operation, installation or facility regulated by this code or the rules is installed or established, including any condition or ancillary equipment necessary for its proper operation, whether or not required for compliance with the requirements of this code or the rules, such device, equipment, system, operation, installation or facility shall thereafter be continuously maintained in good working order, in accordance with this code, the rules, the construction codes and the manufacturer’s instructions.”

“FC107.4.2 Other tampering. Locks, gates, doors, barricades, chains, enclosures, signs, tags or seals required by this code, the rules, permit or order of the commissioner shall not be removed, defaced, obscured, unlocked and/or otherwise rendered illegible or inoperable.”

Changing General Contractors or Applicants on Existing Permits

This cannot currently be done online through the Development Hub. One will save on paying the permit fee twice, and possibly some paperwork.

To change a General Contractor, the following is required to be submitted at the Borough Office:

- 1) New PW2 indicating renewal with change - \$100 fee
- 2) Notarized letter from owner
- 3) Letter from superseding contractor on letterhead

To change the Applicant, the following is required to be submitted at the Borough Office:

- 1) Post Approval Amendment (PAA) – PAA is same as the PW1 form, but change the filing type field - \$100 fee
- 2) All new forms and plans with new applicant’s seal and signature

Construction Permit Fees

[Local Law 56 of 2016](#) lists the fee schedule for all permit types. The Electrical Permit fees are outlined on the [ED 16A form](#)

Complying with Zoning Height & Setback Requirements on Plans

FOR RESIDENTIAL BUILDINGS OR PORTIONS OF MIXED-USE BUILDINGS WHERE RESIDENTIAL BULK APPLIES

SCENARIO 1 – Most common

Solar panels on residential buildings are a permitted obstruction up to 4 feet in height per ZR 23-62(m). However, any roof with a slope greater than 20 degrees is limited to 18 inches in height as measured perpendicular to the roof surface. If the proposed installation is 4 feet or under in height, a height/setback diagram will not be required. In lieu of providing a zoning height/setback diagram, applicants may provide the following note on drawings: **“The solar system installation complies with ZR 23-62(m).”**

SCENARIO 2

If the proposed solar panels, on a residential building, are designed to be elevated over 4 feet above the roof level, applicants must show a zoning height/setback diagram to demonstrate compliance with ZR 23-62(m)(2) or ZR 23-62(m)(3).

Note: Both scenarios may be applied to a residential building with a legally existing non-compliant bulk.

FOR COMMERCIAL BUILDINGS

SCENARIO 1

Solar panels on commercial buildings are a permitted obstruction up to 4 feet in height per ZR 33-42(n)(1). However, any roof with a slope greater than 20 degrees is limited to 18 inches in height as measured perpendicular to the roof surface. If the proposed installation is 4 feet or under in height, a height/setback diagram will not be required. In lieu of providing a zoning height/setback diagram, applicants may provide the following note on drawings: **“The solar system installation complies with ZR 33-42(n)(1).”**

SCENARIO 2

If the proposed solar panels, on commercial buildings, are designed to be elevated over 4 feet above the roof level, applicants must show a zoning height/setback diagram to demonstrate compliance with ZR 33-42(n)(2) or ZR 33-42(n)(3).

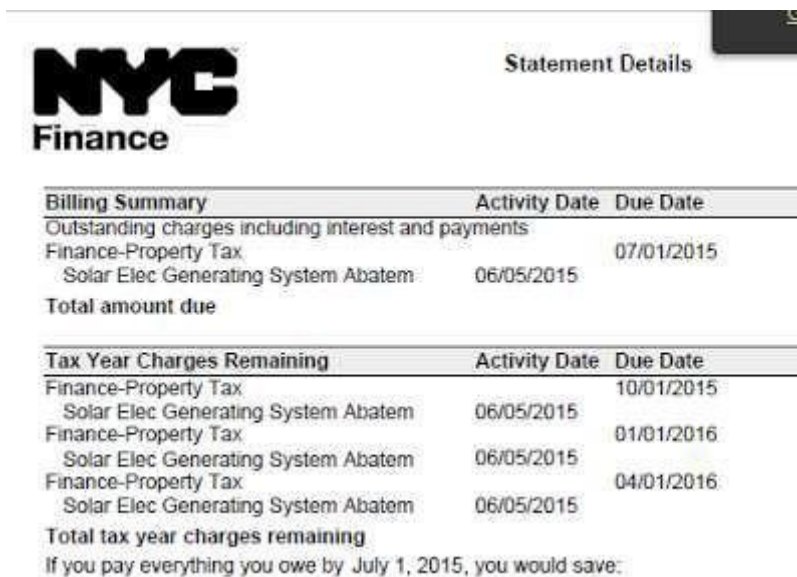
Note: Both scenarios may be applied to a commercial building with a legally existing non-compliant bulk.

Confirming the NYC Property Tax Abatement was Applied

The NYC Department of Finance offers this [link to find copies of any Block and Lot's property tax bill](#) to see if the solar PTA was applied

If your project receives construction sign-off by DOB on the permit application by May 15th, the PTA should be applied on the following July 1 property tax bill. NYC DOF bills property taxes quarterly. Therefore, the PTA is split between 5% of eligible expenditures listed on the PTA4 form over 4 years and in each year is split quarterly. (July, October, January, April). The bill will show the 'Billing Summary' for the current quarter with the PTA listed as a negative line item under 'Solar Elec Generating System Abatem.' It will also list 'Tax Year Charges Remaining' for the following quarters left in the fiscal year. Fiscal years run June to July.

The dollar amounts would be listed to the right of the below screenshot.



The screenshot shows the NYC Finance logo and the title 'Statement Details'. It contains two tables. The first table, 'Billing Summary', lists 'Outstanding charges including interest and payments' with a due date of 07/01/2015. It also shows 'Finance-Property Tax' and 'Solar Elec Generating System Abatem' with an activity date of 06/05/2015. The second table, 'Tax Year Charges Remaining', lists 'Finance-Property Tax' and 'Solar Elec Generating System Abatem' for the quarters ending 10/01/2015, 01/01/2016, and 04/01/2016, all with an activity date of 06/05/2015. A note at the bottom states: 'Total tax year charges remaining. If you pay everything you owe by July 1, 2015, you would save:'

Billing Summary	Activity Date	Due Date
Outstanding charges including interest and payments		
Finance-Property Tax		07/01/2015
Solar Elec Generating System Abatem	06/05/2015	
Total amount due		

Tax Year Charges Remaining	Activity Date	Due Date
Finance-Property Tax		10/01/2015
Solar Elec Generating System Abatem	06/05/2015	
Finance-Property Tax		01/01/2016
Solar Elec Generating System Abatem	06/05/2015	
Finance-Property Tax		04/01/2016
Solar Elec Generating System Abatem	06/05/2015	
Total tax year charges remaining		

If you pay everything you owe by July 1, 2015, you would save:

Please be aware per the [PTA law](#), each separate building on the same tax lot qualifies as an “eligible building,” meaning that each building may take advantage of the tax abatement. Similarly, one building is eligible for one abatement regardless of the number of tax lots upon which it resides. DOF records properties and bills by the Borough, Block, and Lot (BBL).

- If an owner decides to add more solar panels on an additional permit application that only has one building on the BBL, just the first application would be eligible for the PTA.
- If there are multiple buildings on one BBL, that should mean there is only one property tax bill. If there are three buildings on one BBL, DOF will apply up to three property tax abatements. However, there is no way to identify building A or address A should get the PTA instead of building B or address B. That will need to be worked out by the building owners or management.