

PERMIT APPLICATION

NY State Unified Solar Permit

Unified solar permitting is available statewide for eligible solar photovoltaic (PV) installations. Municipal authorities that adopt the unified permit streamline their process while providing consistent and thorough review of solar PV permitting applications and installations. Upon approval of this application and supporting documentation, the authority having jurisdiction (AHJ) will issue a building and/or electrical permit for the solar PV installation described herein.

PROJECT ELIGIBILITY FOR UNIFIED PERMITTING PROCESS

By submitting this application, the applicant attests that the proposed project meets the established eligibility criteria for the unified permitting process (subject to verification by the AHJ). The proposed solar PV system installation:

- Yes No 1. Has a rated DC capacity of 25 kW or less.
- Yes No 2. Is not subject to review by an Architectural or Historical Review Board. (If review has already been issued, answer YES and attach a copy.)
- Yes No 3. Does not need a zoning variance or special use permit. (If variance or permit has already been issued answer YES and attach a copy.)
- Yes No 4. Is mounted on a permitted roof structure, on a legal accessory structure, or ground mounted on the applicant's property. If on a legal accessory structure, a diagram showing existing electrical connection to structure is attached.
- Yes No 5. The Solar Installation Contractor complies with all licensing and other requirements of the jurisdiction and the State.
- Yes No 6. If the structure is a sloped roof, solar panels are mounted parallel to the roof surface.

For solar PV systems not meeting these eligibility criteria, the applicant is not eligible for the Unified Solar Permit and must submit conventional permit applications. Permit applications may be downloaded here:

<http://www.troyny.gov/departments/code-enforcement/building-permits/> or obtained in person at the Code Enforcement Department, City of Troy, 5th Floor, 433 River Street, Troy, NY 12180 during business hours (8:30 AM – 4:30 PM, Monday through Friday).

SUBMITTAL INSTRUCTIONS

For projects meeting the eligibility criteria, this application and the following attachments will constitute the Unified Solar Permitting package.

- This application form, with all fields completed and bearing relevant signatures.
- Permitting fee, payable by cash or by check written to the "City of Troy", delivered in person, or mailed to: Code Enforcement Department, City of Troy, 5th Floor, 433 River Street, Troy, NY 12180. To determine the fee amount, please reference <http://www.troyny.gov/wp-content/uploads/2016/09/permitfeeschedule.pdf>
- Required Construction Documents for the solar PV system type being installed, including required attachments.

Completed permit applications can be submitted electronically to Buildingpermits@troyny.gov or in person at the Code Enforcement Department, City of Troy, 5th Floor, 433 River Street, Troy, NY 12180 during business hours (8:30 AM – 4:30 PM, Monday through Friday).

APPLICATION REVIEW TIMELINE

Permit determinations will be issued within 7 calendar days upon receipt of complete and accurate applications. The municipality will provide feedback within 7 calendar days of receiving incomplete or inaccurate applications.

FOR FURTHER INFORMATION

Questions about this permitting process may be directed to:

Code Enforcement Attention: Building Department 433 River Street, 5th Floor, Troy, NY 12180
(518) 279-7180 Fax: (518) 268-1690 Buildingpermits@troyny.gov

PROPERTY OWNER

Property Owner's First Name	Last Name	Title		
Property Address	City	State	Zip	
Section	Block	Lot Number		

EXISTING USE

- Single Family 2-4 Family Commercial Other

PROVIDE THE TOTAL SYSTEM CAPACITY RATING (SUM OF ALL PANELS)

Solar PV System: _____ kW DC

SELECT SYSTEM CONFIGURATION

Make sure your selection matches the Construction Documents included with this application.

- | | |
|--|--|
| <input type="checkbox"/> Supply side connection with microinverters | <input type="checkbox"/> Load side connection with DC optimizers |
| <input type="checkbox"/> Supply side connection with DC optimizers | <input type="checkbox"/> Load side connection with microinverters |
| <input type="checkbox"/> Supply side connection with string inverter | <input type="checkbox"/> Load side connection with string inverter |

SOLAR INSTALLATION CONTRACTOR

Contractor Business Name			
Contractor Business Address	City	State	Zip
Contractor Contact Name	Phone Number		
Contractor License Number(s)	Contractor Email		
Electrician Business Name			
Electrician Business Address	City	State	Zip
Electrician Contact Name	Phone Number		
Electrician License Number(s)	Electrician Email		

Please sign below to affirm that all answers are correct and that you have met all the conditions and requirements to submit a unified solar permit.

Property Owner's Signature	Date
Solar Installation Company Representative Signature	Date

SUBMITTAL REQUIREMENTS SOLAR PV 25 KW OR LESS (ATTACHMENTS)

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This information bulletin is published to guide applicants through the unified solar PV permitting process for solar photovoltaic (PV) projects 25 kW in size or smaller. This bulletin provides information about submittal requirements for plan review, required fees, and inspections.

PERMITS AND APPROVALS REQUIRED

The following permits are required to install a solar PV system with a nameplate DC power output of 25 kW or less:

- a) Unified Solar Permit
- b) Electrical Permit (must be by a third party electrician, certified to do business in the City of Troy)
- c) Building Permit

Planning review is required for ground-mounted solar PV installations of this size, but not required for roof-mounted solar PV installations of this size.

Fire Department approval IS required for solar PV installations of this size.

A variance from the Zoning Board of Appeals is necessary if the solar PV system is the primary usage on a property.

SUBMITTAL REQUIREMENTS

In order to submit a complete permit application for a new solar PV system, the applicant must include:

- a) Completed Standard Permit Application form which includes confirmed eligibility for the Unified Solar Permitting process. This permit application form can be downloaded at <http://www.troyny.gov/wp-content/uploads/2017/02/appbldgpermit.pdf>.
- b) Construction Documents, with listed attachments [samples are available in “Understanding Solar PV Permitting and Inspecting in New York State” at <https://www.nyserda.ny.gov/-/media/NYSun/files/Understanding-Solar-PV-Permitting-Inspecting.pdf>]. Construction Documents must be by stamped and signed by a New York State Registered Architect or New York State Licensed Professional Engineer.

Troy, New York, through adopting the Unified Solar Permitting process, requires contractors to provide construction documents, such as the examples included in the Understanding Solar PV Permitting and Inspecting in New York State document. Should the applicant wish to submit Construction Documents in another format, ensure that the submittal includes the following information:

- Manufacturer/model number/quantity of solar PV modules and inverter(s).
- String configuration for solar PV array, clearly indicating the number of modules in series and strings in parallel (if applicable).
- Combiner boxes: Manufacturer, model number, NEMA rating.
- From array to the point of interconnection with existing (or new) electrical distribution equipment: identification of all raceways (conduit, boxes, fittings, etc.), conductors and cable assemblies, including size and type of raceways, conductors, and cable assemblies.
- Sizing and location of the EGC (equipment grounding conductor).
- Sizing and location of GEC (grounding electrode conductor, if applicable).
- Disconnecting means of both AC and DC including indication of voltage, ampere, and NEMA rating.
- Interconnection type/location (supply side or load side connection)
- For supply side connections only, indication that breaker or disconnect meets or exceeds available utility fault current rating kAIC (amps interrupting capacity in thousands).
- Ratings of service entrance conductors (size insulation type AL or CU), proposed service disconnect, and overcurrent protection device for new supply side connected solar PV system (reference NEC 230.82, 230.70).
- Rapid shutdown device location/method and relevant labeling.

- c) (For Roof Mounted Systems) A roof plan showing roof layout, solar PV panels, and the following fire safety items: approximate location of roof access point, location of code-compliant access pathways, code exemptions, solar PV system fire classification, and the locations of all required labels and markings.
- d) Provide construction drawings with the following information:
- The type of roof covering and the number of roof coverings installed.
 - Type of roof framing, size of members, and spacing.
 - Weight of panels, support locations, and method of attachment.
 - Framing plan and details for any work necessary to strengthen the existing roof structure.
 - Site-specific structural calculations.
- e) Where an approved racking system is used, provide documentation showing manufacturer of the racking system, maximum allowable weight the system can support, attachment method to roof or ground, and product evaluation information or structural design for the rack.

PLAN REVIEW

Permit applications can be submitted to Code Enforcement - Building Department, City of Troy, 5th Floor, 433 River Street, Troy, NY 12180, and electronically through: Buildingpermits@troyny.gov.

FEES

To determine the fee amount, please reference <http://www.troyny.gov/wp-content/uploads/2016/09/permitfeeschedule.pdf>

INSPECTIONS

Once all permits to construct the solar PV installation have been issued and the system has been installed, it must be inspected before final approval is granted for the solar PV system. On-site inspections can be scheduled by contacting the Code Enforcement Department by telephone at (518) 279-7180.

Inspection requests received within business hours are typically scheduled for the next business day. If next business day is not available, inspection should happen within a five-day window.

In order to receive final approval, the following inspections are required:

FINAL INSPECTION: The applicant must contact the City of Troy's Department of Code Enforcement at (518) 279-7180 when ready for a final inspection. During this inspection, the inspector will review the complete installation to ensure compliance with codes and standards, as well as confirming that the installation matches the records included with the permit application. The applicant must have ready, at the time of inspection, the following materials and make them available to the inspector:

- Copies of as-built drawings and equipment specifications, if different than the materials provided with the application.
- Photographs of key hard to access equipment, including;
 - Example of array attachment point and flashing/sealing methods used.
 - Opened rooftop enclosures, combiners, and junction boxes.
 - Bonding point with premises grounding electrode system.
 - Supply side connection tap method/device.
 - Module and microinverter/DC optimizer nameplates.
 - Microinverter/DC optimizer attachment.

The City of Troy, New York, has adopted a standardized inspection checklist, which can be found in the "Understanding Solar PV Permitting and Inspecting in New York State" document, found here: <https://www.nyserda.ny.gov/-/media/NYSun/files/Understanding-Solar-PV-Permitting-Inspecting.pdf>

The inspection checklist provides an overview of common points of inspection that the applicant should be prepared to show compliance. If not available, common checks include the following:

- Number of solar PV modules and model number match plans and specification sheets number match plans and specification sheets.
- Array conductors and components are installed in a neat and workman-like manner.
- Solar PV array is properly grounded.
- Electrical boxes and connections are suitable for environment.
- Array is fastened and sealed according to attachment detail.
- Conductor's ratings and sizes match plans.
- Appropriate signs are properly constructed, installed and displayed, including the following:
 - Sign identifying PV power source system attributes at DC disconnect.
 - Sign identifying AC point of connection.
 - Rapid shutdown device meets applicable requirements of NEC 690.12.
- Equipment ratings are consistent with application and installed signs on the installation, including the following:
 - Inverter has a rating as high as max voltage on PV power source sign.
 - DC-side overcurrent circuit protection devices (OCPDs) are DC rated at least as high as max voltage on sign.
 - Inverter is rated for the site AC voltage supplied and shown on the AC point of connection sign.
 - OCPD connected to the AC output of the inverter is rated at least 125% of maximum current on sign and is no larger than the maximum OCPD on the inverter listing label.
 - Sum of the main OCPD and the inverter OCPD is rated for not more than 120% of the buss bar rating.

UNIFIED SOLAR PERMITTING RESOURCES

The jurisdiction has adopted the following documents from the New York Unified Solar Permit process:

- Standard Application <http://www.troy.ny.gov/wp-content/uploads/2017/02/solarpermit.pdf>
- “Understanding Solar PV Permitting and Inspecting in New York State” document, which includes sample construction documents, inspection checklist, design review checklist, and labelling guide [<https://www.nyserda.ny.gov/-/media/NYSun/files/Understanding-Solar-PV-Permitting-Inspecting.pdf>]

DEPARTMENTAL CONTACT INFORMATION

For additional information regarding this permit process, please consult our departmental website at <http://www.troy.ny.gov/departments/code-enforcement/building-permits/> or contact the City of Troy's Department of Code Enforcement at (518) 279-7180.