

Town of Elmira NY Unified Solar Permit Instructions

These instructions are 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 is required to install a solar PV system with a nameplate DC power output of 25 kW or less:

- a) Unified Solar Permit Application.
- b) Building permits as determined by the code enforcement officer. Planning review is required for solar PV installations of this size.

Fire Department approval is **not** required for solar PV installations of this size.

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 [https://www.townofelmira.com/Town of Elmira NY Unified Solar Permit Application 2019.pdf](https://www.townofelmira.com/Town%20of%20Elmira%20NY%20Unified%20Solar%20Permit%20Application%202019.pdf)
- b) Construction Documents, with listed attachments. Construction Documents must be stamped and signed by a New York State Registered Architect or New York State Licensed Professional Engineer.

The Town of Elmira, 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) **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.

Ground Mounted Arrays: A property survey upon which is drawn the location of the array, its north-south orientation, and all ditches to utility interconnects/meters buildings and/or disconnects.

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 the Code Enforcement Officer in person at 1255 West Water Street Elmira, New York 14905; by fax at (607) 734-4089 fax; by e-mail at codeofficer@townofelmira.com.

FEES

The updated Fee Schedule may be found at http://townofelmira.com/post/_docs/Building_Permit_Fees.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 Office by telephone at (607) 734-3608 or by e-mail at codeofficer@townofelmira.com.

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 must have been completed:

ROUGH INSPECTION During a rough inspection, the applicant must demonstrate that the work in progress complies with relevant codes and standards. The purpose of the rough inspection is to allow the inspector to view aspects of the system that may be concealed once the system is complete, such as:

- Wiring concealed by new construction.
- Portions of the system that are contained in trenches or foundations that will be buried upon completion of the system.

It is the responsibility of the applicant to notify the Code Enforcement Officer before the components are buried or concealed and to provide safe access (including necessary climbing and fall arrest equipment) to the inspector. The inspector will attempt, if possible, to accommodate requests for rough inspections in a timely manner.

FINAL ELECTRICAL INSPECTION A Final Electrical Inspection is REQUIRED by a Town of Elmira APPROVED electrical inspector prior to the final inspection by the Code Officer. The applicant must contact the Code Enforcement Officer 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 Town of Elmira has adopted a standardized inspection checklist, which can be found in the [Understanding Solar PV Permitting and Inspecting in New York State](https://www.nyseda.ny.gov/-/media/NYSun/files/Understanding-Solar-PV-Permitting-Inspecting.pdf) document, found here: <https://www.nyseda.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. 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 Town of Elmira has adopted the following documents from the New York Unified Solar Permit process:

- Standard Application: [https://www.townofelmira.com/Town of Elmira NY Unified Solar Permit Application 2019.pdf](https://www.townofelmira.com/Town%20of%20Elmira%20NY%20Unified%20Solar%20Permit%20Application%202019.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.nyseda.ny.gov/All%20Programs/Programs/Clean%20Energy%20Siting/Solar%20Guidebook>

DEPARTMENTAL CONTACT INFORMATION

For additional information regarding this permit process, please consult our departmental website at <https://www.townofelmira.com/postcategory.php?c=BuildingCodes> or contact the Code Enforcement Office at (607)-734-3608 or codeofficer@townofelmira.com