

MODEL ELECTRICAL INSTALLATION AND PERMITTING REQUIREMENTS FOR SOLAR PHOTOVOLTAIC (PV) SYSTEMS GUIDANCE DOCUMENT

This model-permitting guide provides background and guidance for Massachusetts electrical code officials, wire inspectors, and solar developers inspecting and permitting solar PV installations. The guide contains general electrical permitting information required by law as well as useful information to guide both the wiring official and the installer in the permitting process to ensure that solar PV systems are installed in a safe manner and in compliance with Massachusetts's requirements. This guide is intended to be used as a supplement to Uniform Application for Permit to Perform Electrical Work, attached [here](#).

GENERAL

MASSACHUSETTS GENERAL LAWS:

In accordance with Massachusetts General Law (MGL) c. 143 §3L, individuals installing electrical wiring must give notice of commencement and completion of electrical work. Notice of commencement must be given, within five days after commencing work, to the local Inspector of Wires using the Uniform Application for Permit to Perform Electrical Work attached [here](#).

The Inspector of Wires is required, within five days of notification of completion of work, to give his or her approval or disapproval of the work. If a notice of disapproval is given, it must specifically note the portion of the work that has been disapproved, together with a reference to the applicable section of the Massachusetts electrical code 527C.M.R.12 Cities. Towns must inspect electrical work for which a permit has been issued based on a notice of completion from the installer, as per (MGL) c. 143 §3L. Documents required to support this inspection are provided below in the application requirements for solar PV section.

The actual installation of the PV components must be installed by Massachusetts-licensed electricians in accordance with the proper ratio requirements as per M.G.L. c. 141 sec 1.

INSPECTIONS:

Electrical work must remain accessible and exposed for inspection until approved by the city or town inspector of wires

- It is important to note that such work must not be covered, concealed, modified or energized until approved by the AHJ (Authority Having Jurisdiction)
- The applicant stated on the permit application and permit is the person responsible for notifying the city or town Inspector of Wires when the work is completed.
- The responsible person or his or her designee should be available on site during inspection to facilitate the inspection process
- During all inspections, installations may require multiple inspections in various phases as required by the wiring inspectors

RECOMMENDED PRACTICES:

The following are recommended practices for the installing electrician, solar PV installer and inspector of wires to support the inspection process.

- Establish open communications with the Local Inspector of Wires.
- As provided in M.G.L. c. 143 §3L, installers have five days to obtain a permit after commencing the job. After the installer notifies the inspector of wires of completion of work, the Inspector of Wires shall within 5 days give written notice of approval or disapproval; however, due to the nature of PV, it is recommended to contact the local wiring inspector first, prior to initiating the work. It is at this time that plan reviews may be necessary and should be completed BEFORE commencement of work.
- Refer to [Guidance Memo 13-01 Massachusetts Electricians Licensing requirements relating to the installation of P.V. \(photovoltaic\) systems](#) for licensing guidance
- Contact the local fire department to make them aware that a PV system has been installed in their jurisdiction

SOLAR PV

APPLICATION REQUIREMENTS FOR SOLAR PV

Along with the application for permits, one can include but is not limited to:

- An application for a permit using the Uniform Application for Permit to Perform Electrical Work One-line electrical drawing
- One-line site plan drawing
- Solar PV module specification sheets from manufacturer
- Inverter specification sheets from manufacturer