



City of Keene, NH Residential Solar Photovoltaic (PV) System Building Permit Checklist

This permit application checklist is for residential (1 and 2 family) solar PV applications. A building permit application and complete plans that are legible and drawn to scale will be required for plan review. Application forms and fee schedules are available online at www.ci.keene.nh.us/community-development. If you have any questions, please call the Community Development Department at (603) 352-5440 or email communitydevelopment@ci.keene.nh.us.

Review Process Timeline:

The Community Development Department is committed to providing a timely review of solar PV permit applications. Applications will be processed in the order of receipt. Best efforts are made to review completed residential solar permit applications within 2-3 days. These turnaround times are typical, not guaranteed. Certain circumstances can prolong the permit turnaround time, including:

- Applicant does not submit all required information.
- A licensed electrician has not signed off on the permit application.
- Staff workloads, vacations, and sick leave can cause unforeseen delays.

General Requirements for all Solar Energy System Installations

- Building permit application. Electronic submissions are encouraged.
 - Link to online permit application: <https://talktomycity.com/create>
 - Link to paper application: https://ci.keene.nh.us/sites/default/files/2018-07/Permit_application.pdf
- Application fee, due at time the permit is issued (see online [fee schedule](#)).
 - Note: For single family owner-occupied homes, there is a 10% discount for using a licensed electrician.
- Two sets of construction documents and plans.
- Two copies of inverter manufacturer specifications.
- Two copies of photovoltaic system module manufacturer specifications.
- Two copies of manufacturer installation instructions.
- Equipment must be listed and labeled. Signage details to be provided.
- The installation must comply with other City requirements including, but not limited to, Zoning requirements, Floodplain requirements (if located in the floodplain), and Historic District Commission requirements (if located in the Downtown Historic District). To check which requirements would apply to your property, please contact the Community Development Department.
- Information about the solar PV system (please submit with your permit application):
 - Size of the system (kilowatts AC):
 - Size of the system (kilowatts DC):
 - Number of solar panels:
 - Size (capacity) of the inverter in kilowatts:
 - Azimuth (angle of the array in relation to the sun):
 - Angle (tilt of array):
- Location of solar panels (i.e. location of panels on the roof or on the property). Please show on a plot plan drawn to scale.



If the array is roof mounted:

- Two copies of a roof plan that shows the existing condition and location of proposed equipment. This includes access pathways required by Fire Code.
- If panels are not mounted flush to the roof, total height of the building with proposed equipment:
- Two copies of construction documents or sealed assembly / installation plans of the photovoltaic system.
- Two copies of construction documents of the photovoltaic systems' connection to the structure of the building. Construction documents shall include, but are not limited to, framing plans, any structural upgrades needed, connection details to the building, and any structural calculations or load documents.
 - Note: Engineered plans may be required for existing buildings to make sure they meet structural requirements.
- Two copies of a line diagram showing the array configuration, array wiring, combiner/junction box, conduit/wiring from array to inverter, DC grounding system, disconnecting means, inverter, conduit/wiring from inverter to utility point of connection, AC grounding and system grounding, and point of connection attachment method.

If the array is ground mounted:

- Show array supports, framing members, and foundation posts and footings.
- Provide information on mounting structure(s) construction. Engineering calculations by a design professional may be required.
- Show detail on module attachment method to mounting structure. Gravity loads and wind uplift must be addressed by design.

Notes:

- All documents submitted for review must have a minimum text size of 3/32" and a minimum drawing sheet size of 11"x17" and a maximum drawing sheet size of 36"x48," "E" size.
- Ground snow load for the City of Keene is 60 pounds and the wind load is 115 miles per hour.
- Additional information required by the Building Official may be necessary for the issuance of the permit.
- Multiple inspections will be required, including, but not limited, to: footing/foundation, framing/structural upgrades, labeling, grounding, and rapid shutdown/disconnect.