



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

This checklist is for commercial and multifamily solar PV applications. A building permit application and complete plans that are legible and drawn to scale will be required for plan review. Applications will be processed in the order of receipt. If you have any questions, please call the Community Development Department at (603) 352-5440 or email communitydevelopment@ci.keene.nh.us.

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](#)).
- Three sets of construction documents and plans. All construction documents and plans for the installation of the photovoltaic system must be reviewed or designed and sealed by a licensed professional engineer to comply with the NH State Building Code.
- Three copies of inverter manufacturer specifications.
- Three copies of photovoltaic system module manufacturer specifications.
- Three 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):
- Three sets of a detailed site plan, drawn to scale and legible, to show the location of existing structures and the proposed solar energy system equipment. The site plan must show all property lines indicating length, metes and bounds, building lines, easements, and north arrow.

If array is roof mounted:

- Building code information about the building the solar energy system will be attached to, if applicable.
 - Occupancy group
 - Number of stories
 - Construction type
 - Fire sprinkler system (select for fully-sprinkled buildings only)
- Three copies of a roof plan that shows existing mechanical and plumbing venting and intake, and location of proposed equipment. This includes access pathways required by Fire Code.
- Three copies of building elevations showing the total building height with the proposed equipment.
- Three copies of engineered construction documents or sealed assembly/installation plans of the photovoltaic system.



- Three copies of engineered 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.
- Three 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, point of connection attachment method.

If 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.