

Solar Photovoltaic (PV) System Permitting Checklist

The pre-submittal checklist below contains the minimum information and project plan details required to be submitted to the City of Portsmouth when applying for a permit to install a rooftop solar photovoltaic (PV) system. The intent of using the checklist is to provide transparent and well-defined information to minimize the number of required revisions, improve permit application quality, and accelerate the application and review process.

Relevant Codes and Design Criteria

The City of Portsmouth has adopted the following codes:

2018 IBC
2018 IRC
2023 NFPA 70/NEC
2018 NFPA 1
2018 NFPA 101
2018 IFC
City of Portsmouth Building Code: Chapter 12

The following local design criteria should be used:

Maximum wind speed: 130 MPH

Snow Load: 50 PSF

Frost Depth: 48"

Maximum assumable soil bearing capacity: See section 1806 of the 2018 IBC

Minimum assumable lateral earth pressure: See section 1610 of the 2018 IBC

Fire Recommendations:

Portsmouth follows the NH State Fire Marshal's Fire Safety Guidance for one-and two-family dwellings looking to install photovoltaic systems. Please refer to their 2020-01 Informational Bulletin for more information:

<https://www.nh.gov/safety/divisions/firesafety/bulletins/documents/IB2020-01SolarInstallations.pdf>

Required Permits

A permit must be obtained prior to the start of any work. Complete the following permit application form(s) and submit any additional required documents.

Residential* Solar PV System:

- Electrical permit
- Building permit
- Land use permit (only applicable if within Historic District**)

*Same steps applicable to commercial/non-residential properties

**If you are unsure whether or not your project falls into the Historic District, please look at the Zoning Layer on our online mapping service, [MapGeo](#). Otherwise, please reach out to Izak Gilbo (igilbo@cityofportsmouth.com) or (603) 610-7235) in the Planning and Sustainability Department for more information on the Historic District.



Additional Required Documents

- Site Plan
 - Site plan should show the location of major components on the property. The site plan drawing should show exact component locations on site and to scale.
 - PV arrays and energy storage systems must be in compliance with [IFC fire setback requirements](#)
- Electrical Diagram
 - Electrical diagram/worksheets should show PV and energy storage system configuration (including mounting type), wiring system, overcurrent protection, inverter, disconnects, required signs, and AC connection to the building.
- Specification sheets and installation manuals (if available)
 - Provide spec sheets and manuals for all manufactured components including, but no limited to, PV modules, inverter(s), combiner box, disconnects, and mounting system.
- Applicable Licenses/Certifications
 - NH Licensed Structural Engineer
- Letter from NH Licensed Structural Engineer for review of the existing roof system as well as the proposed mounting system.

Contractor Requirements

An electrician shall be licensed to perform electrical work in New Hampshire.

Permit Fees

Complete fee information can be found within specific department webpages (see links below):

- [Building & Electrical Permit Fees](#)
- [Land Use Permit Fees](#) (only if in Historic District)
 - (See [Portsmouth City Ordinance Chapter 1, Article XVI](#)).

Submit Permit Application

All building, electrical and land use permit applications can be accessed through the City's online permitting system ([OpenGov's Citizen Services -- aka View Point](#)).

For help starting an application, please visit the [New User/FAQ page](#).

Review Process Timeline

The City of Portsmouth is committed to providing a timely review of solar PV permit applications. Certain circumstances can prolong the permitting process including:

- Applicant does not submit all required information.
- The contractor applying for the permit is not a licensed contractor.
- Equipment is not listed.

Permit Status

To check your permit status please visit the [online permit application](#), or call the Inspections Department at (603) 610-7243.



Permit Expiration

Every permit issued shall become invalid if the authorized work is not commenced within one year after issuance of the permit, or if the authorized work is suspended or abandoned for a period of one year after the time of commencing the work. The building official may grant one (1) extension of time not exceeding twelve (12) months if there is reasonable cause and only when requested in writing prior to the permit expiration date. Said extension will only be authorized when it does not conflict with any Federal, State or Local laws or ordinances. For a permit to be considered active, periodic inspections (no less than 6 months in between) must be requested and work progress documented by inspections. Work elements shall be items associated with the building permit scope of work.

Minimum progress required to keep permit extension active. After an extension has been granted under 1202.2.7, work shall begin within the next twelve (12) month period and, shall have progressed such that a full foundation has been constructed and inspected in that same twelve (12) months. If the scope of work does not include a foundation, then within the same (first) twelve month period, framing shall be complete and inspected to a weather tight condition. When work involves a foundation, framing to a weather tight condition shall be complete and inspected within the next (second) twelve (12) month period. If the scope of work does not involve either a foundation or weather tight framing, work progress shall be at a final inspection stage within twenty-four (24) months from the date of granting the permit extension under 1202.2.7. Failure to achieve these milestones shall cause the permit to become invalid.

Scheduling an Inspection and the Inspection Process

To schedule an inspection, please call the Inspections Department at (603) 610-7243 or request an appointment through the online permitting system. The applicant will schedule a rough inspection, and subsequently a final inspection. Typically, inspections are completed within 4 days. Inspections are conducted Monday through Friday during the following times: Monday, 8:00 AM - 6:00 PM; Tuesday - Thursday, 8:00 AM - 4:30 PM; and Friday, 8:00 AM - 1:00 PM. (NOTE: If a holiday falls on a Monday, City Hall will be open until 6:00 PM on Tuesday). The applicant may request a specific day and time, we'll do our best to accommodate. The inspection process is straightforward.

A residential solar PV system typically requires 3 inspections:

- Rough electrical inspection
- Racking inspection
- Final inspection

City Hall Hours of Operation

- Mondays 8:00 a.m.-6:00 p.m.
- Tuesdays–Thursdays 8:00 a.m.–4:30 p.m.
- Fridays 8:00 a.m.–1:00 p.m.

Contact Information:

- Planning & Sustainability Department
 - (603) 610-7216



- Inspections Department
 - (603) 610-7243

Optional Next Step

Did you know the City of Portsmouth offers an assessment exemption for solar energy systems? According to [NH RSA 72:62](#), cities and towns may adopt under RSA 72:27 ‘an exemption from the assessed value, for property tax purposes, for persons owning real property which is equipped with a solar energy system as defined in RSA 72:61.’

Please see the [Solar Energy Systems Exemption](#) page or reach out to the Assessing Department for more details at (603) 610-7249

