

Upper Makefield Township

Department of Planning & Zoning

Solar

General Information

Roof Mount

- Shall be located on a rear or side-facing roof, as viewed from any adjacent street unless applicant provides technical and economic site-specific calculations which demonstrate why it is the only effective location.
- Plans document a 1 ½ foot set back from roof ridge.

Integrated Roof Mount

- Permittable by building permit.

Non-Flush Roof Mount

- Requires approval from Board of Supervisors.

Ground Mount

- Property must be four (4) acres or more.
- Shall not be permitted in front yard.
- 60 foot set back from property line and located such that any reflection is directed away from adjoining properties or streets.
- Four foot (4') impenetrable fence and vegetative buffer to ensure site screening from streets and adjacent properties.

Further Details can be found in Upper Makefield Township Ordinance 302 at the following link: <https://www.ecode360.com/30761289#30761289>

Required Forms and Submissions

- ☐ **Zoning Use and Occupancy Permit Application**
- ☐ **Building Permit Application**
- ☐ **Construction Plans.** You must submit 4 sets of construction plans sealed by a registered design professional.
- ☐ **Electrical Application.** With this application you must submit an electrical plan that has been approved by a third-party Electrical Inspector.
- ☐ **Fire Marshal Review Requirements.** See list below.
- ☐ **Professional Services Agreement** requirement determined at time of application based on complexity of install. This agreement is for Township consultant reviews. Please see the current fee schedule for escrow dollar requirements to be submitted.
- ☐ **Insurance.** Upper Makefield Township must be listed as "Certificate Holder" on a current Certificate of Insurance for all contractors, electricians and/or plumbers.
- ☐ **PA Contractor Registration Certificate.** Please submit a copy of the contractor's PA Contractor Registration Certificate.
- ☐ **Upon Completion** the following documentation will be needed to close out the permit in addition to all inspection requirements.
 - **Interconnection Approval** from Utility Company.
 - **Final As-Built Plans** - four (4) sets.
 - **Pictures Documenting Shut off Box Location and Function** - four (4) sets.

OFFICE OF THE FIRE MARSHAL

Residential Solar PV Field Inspection Checklist:

Make sure all PV disconnects and circuit breakers are in the open position and verify the following:

1. ☐ All work done in a neat and workmanlike manner [NEC 110.12].
2. ☐ PV module model number, quantity, and location according to the approved plan.
3. ☐ Array mounting system and structural connections according to the approved plan.
4. ☐ Roof penetrations flashed/sealed according to the approved plan.
5. ☐ Array exposed cables are properly secured, supported, and routed to prevent physical damage.
6. ☐ Conduit installation according to NEC 690.31(G).
7. ☐ If applicable, firefighter access according to approved plan.

The NEC [705.10] requires that all Interconnected Electric Power Production Sources other than the utility must be identified in a sign at the service entrance. The locations of disconnects for any power production sources must be on that sign if those disconnects are not located at the service disconnecting means.

8. ☐ Roof-mounted PV systems have the required fire classification [IBC1505.9 or IRC R902.4].
9. ☐ Grounding/bonding of rack and modules according to the manufacturer's installation instructions.
10. ☐ Equipment installed, listed and labeled according to the approved plan (e.g., PV modules, dc/dc converters, combiners, inverters, rapid shutdown equipment).
11. ☐ For grid-connected systems, inverter is marked "utility interactive" or documentation is provided to show that inverter meets utility interconnection requirements.
12. ☐ Conductors, cables, and conduit types, sizes and markings according to the approved plan.
13. ☐ Overcurrent devices are the type and size according to the approved plan.
14. ☐ Disconnects according to the approved plan and properly located as required by the NEC.

Upper Makefield *Township*

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- 15. ☐ Inverter output circuit breaker is located at opposite end of bus from utility supply at load center and/or service panelboard. If panel is center-fed, inverter output circuit breaker can be at either end of busbar [NEC 705.12(B)] (not required if the sum of the inverter and utility supply circuit breakers is less than or equal to the panel board bus rating).
- 16. ☐ PV system markings, labels and signs according to the approved plan.
- 17. ☐ Connection of the PV system to the grounding electrode system according to the approved plan.
- 18. ☐ Access and working space for operation and maintenance of PV equipment such as inverters, disconnecting means and panelboards (not required for PV modules) [NEC 110.26].
- 19. ☐ The rapid shutdown system is installed and operational according to the approved plan [NEC 690.12].

Name

Signature

Address/Project

Date