DEPARTMENT OF BUILDING INSPECTION

Electrical Permit Application for Roof-Mounted Solar Photovoltaic (PV) Systems Only – in SAN FRANCISCO

Permit #

All Fields Required

Job (Street Address Only):	Owner Name:	Phone:
Contractor License #:	License Class:	Business Tax License #:
Contractor/Applicant Name:		Applicant Phone:
Applicant Address:		Applicant Cell Phone:
☐ Residential ☐ Non-Residential		Applicant Email Address:

Number of PV Modules	X	Watts per Module	÷ 1000	= 0	System (DC) KW

Check all that apply: ☐ BATTERIES ☐ NEW SUBPANEL ☐ SERVICE UPGRADE ☐ OTHER (describe any unusual features):	Building Application # (if applicable)
	Valuation of Electrical Work: $

Note: **Permit issuance is not a statement of Plan Review Compliance**
The contractor's representative who is familiar with the solar PV system shall be on site for the inspection, shall provide access to all areas of the installation. **Approved stamped plans and documentation (see over) must be available on site for inspection.** Systems over **4KW DC** require Plan Review. See supplement document: Protocol For PV Plan Review, available online at www.sfdbi.org. Plans may be submitted by email, saving time, travel expense, and environmental impacts. It is recommended that this supplement be reviewed by all applicants, regardless of system size for an expanded explanation of installation and plan requirements.

Electrical Permit for Photovoltaic Systems shall be charged at the rates established in the San Francisco Building Code at the following rates:

- Up to 10KW $170.00
- Each Additional 10KW (up to (2) Inspections) $100.00
- Plan Review (Per Hour) $187.00
- Re-inspections (Where Required) $170.00
- Additional Permit Processing Fees will be charged per SFBC Fee Table – (i.e. Battery Systems; Charger Outlets; Electrical Panel and Service Up-Grades; etc.)

Plan Reviewer Phone: (415) 558-6136	Plan Review Supplement Link: www.sfdbi.org

Please review your application information for accuracy. A new permit is required to correct inaccuracies or omissions on issued permits.

I have reviewed all conditions listed on both sides of the Permit Application for Roof-Mounted Solar Photovoltaic Form and agree that the conditions accurately represent the proposed solar photovoltaic system.

Signature of contractor (or authorized agent only):	Print Name of Person Signed on Left:	Date:

Official Use Only

FOR SYSTEMS OVER 4KW – PLANS APPROVED ONLY WHEN ALL FIELDS COMPLETED AND SIGNED BELOW BY PLAN REVIEWER

Plan Reviewer Name	Signature:	Date:

Fees:	Plan #

Inspection Services
1660 Mission Street – San Francisco, CA 94103
Office (415) 558-6570 – Fax (415) 558-6397 –www.sfdbi.org

Rev. 03/17/2017

Useful fields

Existing Batter Capacity

New Battery Capacity

Occupancy Class

GENERAL REQUIREMENTS:

1. No Planning Department Review is typically required except for the following:
   Where the installation of the Solar Photovoltaic systems creates or is part of a vertical or horizontal addition to a building, such as a new roof structure or carport extending beyond the surface on which the photovoltaic system could be directly mounted.
2. Electrical Permits Only are required for Photovoltaic Systems, and no Building Permits, Building Permit Fees, or Building Inspections are required except for the following:
   Building permits may be required for structural or electrical systems that, in the opinion of the Director of the Department of Building Inspection, require additional permit review and associated fees to assure the public health and safety.
3. Submittal for Plan Review is required when the Photovoltaic System(s) on any contiguous rooftop has a power rating of more than **4 KW DC** (defined as Module Watts multiplied by Quantity of Modules). Please submit plans by email whenever possible, because plans submitted on paper will be scanned for computer processing. **See Supplement** for instructions and complete requirements for submissions at www.sfdbi.org
   - The following summarizes information that shall be provided to the Plan Review Division:
   - Site Plan approximately to scale including cardinal direction orientation of property, adjacent street, for corner lots also intersecting street, and locations of electric and gas service meters, and string inverters.
   - Roof Array Plan approximately to scale with dimensions, showing perimeter, pitched roof particulars including ridges, hips and valleys, or flat roof and parapets, and all important features such as vents, skylights, HVAC or other significant equipment. Show locations of modules, racking orientation relative to modules, attachment points to structure, junction or combiner boxes, disconnects, conduit routing plan, any associated panels, inverters or equipment relevant to the PV installation.
   - Show required pathways fire personnel including dimensions from insides of parapet walls, ridges, hips, valleys, skylights, large vents, or other obstacles.
   - Provide at least one elevation view of arrays mounted on the structure, including details of the method of attachment.
   - Electrical wiring diagram, including all relevant information regarding modules, inverters, switches, panels, raceways, enclosures, wire types and sizes, wire ampacity calculations for temperature and voltage drop, utility service main breaker ampacity, bus rating of panel with source circuit(s), and utility service voltage.
   - Current manufacturer specification sheets for major components of the system including modules, inverters, racking, and roof attachment materials; provided from manufacturers' websites.
4. Solar PV panel modules will be mounted on the roof or surface of the building.
5. The weight of solar PV panel modules and supporting hardware will not exceed 8 pounds per square foot.
6. Solar PV Panel Modules may be installed over only one roof covering of a flat/built up roof, or two roof coverings of a shingled roof unless otherwise approved by the Department of Building Inspection (DBI)
7. On a flat roof (up to 2:12) with one street frontage, a 36 inch clear area will be provided along the roof edge facing the street. A 36 inch clear walkway will be provided /maintained to allow access to rear of the building.
8. On a flat roof (up to 2:12) of a corner lot building having two street frontages, a 36 inch clear area will be provided along the roof edges facing both streets. No other walkway area is required.
9. On Residential Systems for One and Two Family Dwellings and Other than Residential Buildings For Hip Roof Layouts; Single Ridge; and Roof Hips and Valleys follow the 2016 California Fire Code 605.11 Solar Photovoltaic Power Systems Requirements
10. Clear access to fire standpipes and other emergency equipment is provided /maintained.
11. The solar PV modules will not create and/or will not be part of a vertical or horizontal addition such as, a new roof structure or carport extending beyond the existing building.
12. The solar PV modules when fastened to roof framing will be in accordance with:
    - The support/fastening system is professionally engineered or pre-approved on file with DBI, or
    - The module mounting rack and roof attachment system is designed and/or installed under the direct supervision of a California licensed engineer or architect, or
    - Two bolts per structural attachment point minimum.
    - Lag bolts in wooden members will be 1/4" diameter by 4" long, with 2½" embedment minimum, or 5/16" diameter by 3.5" long, with 2" embedment minimum.
    - Appropriate type and size fasteners will support solar PV panel modules fastened to other materials.
    - Conforming with the following governing codes:
13. 2016 California Fire Code 605.11 Solar Photovoltaic Power Systems
14. 2016 California Electrical Code (NEC 2014) 690 Solar Photovoltaic Systems.
15. 2016 California Electrical Code (NEC 2014) 480 Storage Batteries.
16. 2016 California Electric Code (NEC 2014) 625 Electrical Vehicle Charging System.
17. 2016 California Electrical Code and Building Code.