City of Huntington Beach

Department of Community Development
PHOTOVOLTAIC PLAN REVIEW
2000 Main Street, Huntington Beach, CA 92648
Office: (714) 536 - 5241 Fax: (714) 374 - 1647

SUBMITTAL REQUIREMENTS:

1. Provide two sets of plans, wet stamped, signed and dated by an Electrical Engineer, Architect, or by a licensed C-10 contractor installing the system. Minimum plan size shall be 11" x 17." A third set will be required for Fire Department review on all commercial projects. Plans shall be clear and legible.

2. The Title Sheet should include the property address, property owner's name, building type, full description of the project, and table of contents.

   The Title Sheet should also include a statement that this project shall comply with:
   - **2013 California Electrical Code**
   - **2013 California Building Code**
   - **2013 Residential Code**
   - **City of Huntington Beach Municipal Ordinances**
   - **Huntington Beach Fire Code Chapter 17.56**

   Note: The City of Huntington Beach has adopted the California Fire Code (CFC) and the following ordinances which amend it. **See <u>Chapter 17.56 Huntington Beach Fire Code</u>**.

   Note: 17.56.280 CFC Section 610 Photovoltaic Systems (see below)

   610.1 General. Photovoltaic systems shall comply with the current Orange County Fire Chief's Association Guideline for Fire Safety Elements of Solar Photovoltaic Systems, or as thereafter amended by the Orange County Fire Chief's Association. The provision of this section may be applied by either the fire code official or the building code official. Additional conditions of approval may be applied based on the scope of an individual project.

   Orange County Fire Chief's Association Photovoltaic Guide Lines

   http://www.huntingtonbeachca.gov/government/departments/building_safety/inspections/inspection_bulletins.cfm

3. Provide all equipment manufacturer's specification sheets, installation instructions, and listings.

4. Provide a roof plan projected on a site plan with dimensions showing the property lines, structures, location of the modules, and set backs from roof edges, eaves, ridges, and valleys. Indicate the location of the electrical service equipment, disconnects, inverter(s), raceways, and related equipment. Show the required work clearances for electrical equipment. Plumbing, mechanical and attic vents shall not be covered and shall be indicated.

5. Provide a detail of the mounting methods, hardware, attachment, supports, roof penetration flashings and water proofing.

6. Provide the weight of the roof mounted equipment (pounds per square foot), roofing type, pitch, roof penetration spacing and roof framing including framing member size, spacing, and horizontal span. Project-specific drawings and calculations stamped and signed by a California-licensed Civil or Structural Engineer are required unless the roof framing complies with the following checklist: http://www.huntingtonbeachca.gov/files/users/building_and_safety/Toolkit_Document_5.pdf.

7. Provide an Electrical Single Line Diagram clearly identifying all devices, quantities, ratings, sizes, types and circuit configurations. Indicate the array, strings, modules, raceways, conductors, junction boxes, grounding, bonding, disconnects, electrical service, subpanels, batteries, inverter(s), combiner(s), over-current and fusing. Clearly indicate all methods of grounding and bonding, the grounding electrode configuration (stainless steel ground rods required per HBMC), and connection.

8. Clearly indicate the method and point of interconnection to the utility supplied wiring system.

9. Provide Electrical Calculations at each applicable circuit point for system voltages (include Voc, Vmp), ampacities (include Isc, Imp), for all components, conductors, and over-current, include all adjustments and corrections per 690.7, 690.8 and for temperature, continuous current, and raceway fill.

10. Provide a clear detail of all grounding and bonding methods and connections, including modules and rack systems.

11. Show on the plans all labels and markings. Size and types shall be per CEC 690 and OCFCA photovoltaic guidelines. Indicate labels, and plaques shall be permanent and suitable to withstand the environment.

EXPEDITED REVIEW:

1. For Photovoltaic Installations of 10 kW or less on One- and Two-Family Dwellings, the plan review may be expedited using the Huntington Beach "Toolkits". Two (2) complete sets of all applicable toolkits, specification sheets and installation sheets should be submitted to qualify for an expedited review. Incomplete submittals are subject to the standard review process. The expedited submittal requirements can be found at the following link: http://www.huntingtonbeachca.gov/files/users/building_and_safety/Toolkit_Document_1.pdf

RESUBMITTALS AND REVISIONS:

- Redlined checked sets must be returned with re-submittals. Plans submitted without the redlined check set may result in additional plan review time.
- Appointments need to be made prior to counter plan checks.
- All revisions or additions shall be clouded with a revision mark.