Community Development and Sustainability Department
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RESIDENTIAL ROOFTOP SOLAR (PV) PERMIT APPLICATION CHECKLIST

Pre-Permit

1) Find a contractor that is able to design and install your rooftop solar (PV) system
2) Review your solar panel options and electrical demand. The system must follow the PG&E limitations for kilowatt generation based on current household usage.
3) Note that online resources for information are available. One trusted resource for information is the Cool Davis website: https://www.cooldavis.org/solar
4) Ensure that two sets of plans are completed (11" x 17" size minimum) which must include signature from one of the following; owner, contractor or engineer (wet or electronic stamp and signature required).

'Pulling' Residential PV Permit prior to installation

A Residential permit application form is available online or at the City Hall building counter. Pulling a permit must be completed in person at building counter, 23 Russell Boulevard, and may take 20-30 minutes. The permit process may be completed by homeowner or by their contractor. Note that incomplete information may result in delay of approval.

Please submit the following:

1) Completed Residential Permit Application Form
2) Two sets of plans (see plan requirements on sheet 2 of 2)
3) Permit Fees, based on the project valuation, are approximately $350 to $360. Additional administrative or other fees up to $100 may apply. Cash or checks are the only acceptable payment methods.

You will be given a bright green permit card at the counter. After this permit is issued, the rooftop solar (PV) system may be installed.

City Inspection and Finalizing Permit

Following the installation, the work must be inspected by City staff. This process is required by the City and protects the homeowner by ensuring that the installation meets minimum code requirements. Please complete the following steps:

1) Following complete installation of the rooftop solar system, come in to the building counter or call City of Davis Building Department (530-576-4907) to set an inspection date. (this information will be conveyed at time of permit issuance).
   For an inspection, call before 3:30 to request an inspection the next day between the hours of 8 a.m. and 3 p.m.
2) Be sure to have your permit (along with other forms included in the "permit packet" completed and signed) available on site at time of inspection. In addition, the inspector will need a ladder* for roof access and will need access inside the house to check smoke and carbon monoxide alarms.

3) If the project is approved at time of inspection, the inspector will sign the permit card on site (keep permit for your records). This means that the job is finalled and will be recorded in the system at City Hall by City staff.
4) If project is not approved at time of inspection, the inspector will issue a correction notice. Once these construction issues are completed, steps 1 and 2 can be repeated to final the permit.

Required Information on the plans

A) One line diagram, to include:
   1) All conductor type and sizing
   2) Ground type and sizing, (Minimum #8 AWG copper/#6 Aluminum)
   3) Conduit size and type
   4) Main panel main disconnect Ampere rating and busbar Ampere rating
   5) Electrical calculations, PV power source short circuit rating
   6) PV equipment locations
   7) Equipment bonding points and sizes – 2013 CEC 250.122
   8) AC & DC disconnect locations – 2013 CEC 690.14 (5)
   9) Point of connect to existing electrical service panel

B) Roof/Site plan, (in plan view) to include but not limited to:
   1) Roof layout, including all pathways, points of access and clearances
   2) Orientation arrow (i.e. North arrow)
   3) PV orientation

C) The 2013 California Electrical Code Article 705.12(D)(2) covers the requirements for the point of connection from a Photo-Voltaic Inverter. The most common method is through a dedicated Circuit breaker to the panel's busbar. The allowable size of the breaker is based on the busbar rating and the main breaker. The sum of the supply breakers shall not exceed 120% of the busbar rating. FOR EXAMPLE: a 125 Amp Sub-panel, presumably with a 125 Amp main disconnect and 40 Amp PV supply breakers, would be overloaded; with a busbar rating of 125 Amps the PV disconnect cannot exceed 25 Amps.

D) PV Equipment Manufacturer's Specifications: Provide cut sheets on all components including, but not limited to those shown below; including make, model, listing, size, weight, etc. Highlight project specific information on the cut sheets:
   1) Inverter Specifications to include:
      a) Model number
      b) Integrated disconnect - 2016 CEC 690.17
   2) Mounting System for Panel Installation Highlight project specific information on the cut sheets:
      a) Indicate the style, diameter, length of embedment of bolts into framing members
      b) Location of attachments
      c) Indicate number of bolts per panel
      d) Provide mounting details and certified engineering for listed mounting installation
   3) Photovoltaic Modules:
      a. Cut sheets must indicate that panels and modules are listed and labeled per UL 1703, Per 2016 California Residential Code §R902.4 the Photovoltaic system shall have a minimum class C fire classification rating.
      b. Open-circuit voltage (Voc) from listed cut sheet Maximum system voltage from listed cut sheet
      c. Short-circuit current (ISC) from listed cut sheet Maximum fuse rating
      d. Maximum power- panel wattage from listed cut sheet

* *Note: Access to the roof for any inspection is the responsibility of the owner or permit holder. A CAL-OSHA approved, 300 lb. rated extension ladder shall be provided for the purpose of making all inspections. The ladder must extend a minimum of 3 feet above the roof.*