### **SWH TOOLKIT DOCUMENT #1A**

# Submittal Requirements Bulletin — Solar Domestic Water Heating Installations 30 kWth or Less for One- and Two-Family Dwellings

This information bulletin is published to guide applicants through a streamlined permitting process for solar domestic water heating (SDWH) projects 30 kWth (462 square foot) in size or smaller. This bulletin provides information about submittal requirements for plan review, required fees and inspections.

Note: Language in **ALL CAPS** below indicates where local jurisdictions should provide information specific to the jurisdiction. Language in italics indicates explanatory notes from the authors of this Guidebook.

# 1. Approval Requirements

The following permits are required to install a SDWH system with a maximum thermal output of 30 kWth or less:

a) [LIST TYPE OF PERMIT(S) REQUIRED BY THE LOCAL JURISDICTION, i.e., PLUMBING OR BUILDING PERMIT.]

Planning review [IS/IS NOT] required for SDWH installations of this size.

# 2. Submittal Requirements

- a) Completed permit application form. This permit application form can be downloaded at [WEBSITE ADDRESS].
- b) Demonstrate compliance with the eligibility checklist for expedited permitting. These criteria can be downloaded at [WEBSITE ADDRESS].
  - This Guidebook recommends use of a simple checklist to clearly identify eligibility criteria for expedited permitting, where established.
- c) A completed Standard Plumbing, Electrical, Structural and Mechanical Plan. The standard plan may be used for proposed solar installations 30 kWth in size or smaller and can be downloaded at [WEBSITE ADDRESS].

A standard plan should be submitted that includes the following.

- Total number of collectors and area
- Make, model and collector certification number
- *System certification number*
- Solar storage tank name, model, insulation and capacity
- Heat exchanger make and model (if applicable)
- *Specifications of heat transfer fluid (if applicable)*
- d) A roof plan showing roof layout and solar collectors with attachment details.
- e) System schematic, including major components.
- f) Equipment cut sheets including collectors, controller, storage tank/heat exchanger (if applicable).

g) Completed expedited Structural Criteria checklist along with required documentation. Structural Criteria can be downloaded at [WEBSITE ADDRESS].

For systems that do not meet all the requirements in the structural criteria checklist, provide structural drawings and calculations along with the following information.

- The type of roof covering and the number of roof coverings installed
- Type of roof framing, size of members and spacing
- Weight of panels, support locations and method of attachment
- Framing plan and details for any work necessary to strengthen the existing roof structure
- Site-specific structural calculations
- Where an approved racking system is used, provide documentation showing manufacturer of the rack system, maximum allowable weight the system can support, attachment method to the roof or ground and product evaluation information or structural design for the rack system

This Guidebook recommends that local jurisdictions adopt a prescriptive approach to establishing minimal structural requirements that avoids the need for structural calculations. A simple list of criteria is provided in this Guidebook (SWH Toolkit Document #4). A full explanation of the methods and calculations used to produce these criteria can be found in the Structural Technical Appendix for Residential Rooftop Solar Installations at <a href="http://www.opr.ca.gov/docs/Solar\_Structural\_Technical\_Appendix.pdf">http://www.opr.ca.gov/docs/Solar\_Structural\_Technical\_Appendix.pdf</a>.

### 3. Plan Review

Permit applications can be submitted to [DEPARTMENT NAME] in person at [ADDRESS] and [IF APPLICABLE] electronically through: [WEBSITE/EMAIL/FAX].

Permit applications utilizing standard plan may be approved "over-the-counter" at [ADDRESS]. Permit applications may also be submitted electronically for "over-the-counter" approval [IF APPLICABLE] through: [WEBSITE/EMAIL/FAX].

Permits not approved "over-the-counter" should be reviewed in [ONE TO THREE] days.

## 4. Fees

[PROVIDE CLEAR FEE SCHEDULE]

### 5. Inspections

Once all permits to construct the solar installation have been issued and the system has been installed, it must be inspected before final approval is granted. On-site inspections can be scheduled by contacting [DEPARTMENT] by telephone at [PHONE NUMBER] or electronically at [WEBSITE OR EMAIL ADDRESS]. Inspection requests received within business hours are typically scheduled for the next business day. If next business day is not available, inspection should happen within a five-day window.

Permit holders must be prepared to show conformance with all technical requirements in the field at the time of inspection. The inspector will verify that the installation is in conformance with applicable code requirements and with the approved plans.

The inspection checklist provides an overview of common points of inspection, and the applicant should be prepared to show compliance with these points.

### 6. Departmental Contact Information

For additional information regarding this permit process, please consult our departmental website at [WEBSITE] or contact [DIVISION NAME] at [PHONE NUMBER].