



# RULE-MAKING ORDER

**CR-103E (July 2011)**  
**(Implements RCW 34.05.350)**

**Agency:** State Building Code Council

**Emergency Rule Only**

**Effective date of rule:**

**Emergency Rules**

- Immediately upon filing.
- Later (specify) July 1, 2014

**Any other findings required by other provisions of law as precondition to adoption or effectiveness of rule?**

- Yes
  - No
- If Yes, explain:

**Purpose:** This rule will modify WAC 51-51 to allow installation of photovoltaic panels and modules on residential rooftops without the need for an engineering report. Under the current rules, some jurisdictions require very costly engineering reports in order to issue a permit for installation of these systems. This rule would provide more efficient and cost effective installation of PV systems on residential rooftops.

**Citation of existing rules affected by this order:**

Repealed:  
 Amended: WAC 51-51  
 Suspended:

**Statutory authority for adoption:** 19.27.031, RCW 19.27.074

**Other authority :**

**EMERGENCY RULE**

Under RCW 34.05.350 the agency for good cause finds:

- That immediate adoption, amendment, or repeal of a rule is necessary for the preservation of the public health, safety, or general welfare, and that observing the time requirements of notice and opportunity to comment upon adoption of a permanent rule would be contrary to the public interest.
- That state or federal law or federal rule or a federal deadline for state receipt of federal funds requires immediate adoption of a rule.
- That in order to implement the requirements or reductions in appropriations enacted in any budget for fiscal year 2009, 2010, 2011, 2012, or 2013, which necessitates the need for the immediate adoption, amendment, or repeal of a rule, and that observing the time requirements of notice and opportunity to comment upon adoption of a permanent rule would be contrary to the fiscal needs or requirements of the agency.

**Reasons for this finding:**

The current code language serves as a barrier to the growth of the residential PV installation business in Washington state. Currently many jurisdictions require costly engineering reports which delay permit approvals and result in additional fees. Under these circumstances some potential customers choose not to purchase and install the systems; some installers avoid doing business in some parts of the state due to extremely limiting regulations. Relaxing this requirement would provide additional capacity and allow the industry to continue to thrive in Washington state.

**Date adopted:** June 13, 2014

**NAME (TYPE OR PRINT)**

Ray Allshouse

**SIGNATURE**

**TITLE**

Chair, State Building Code Council

**CODE REVISER USE ONLY**

OFFICE OF THE CODE REVISER  
STATE OF WASHINGTON  
FILED

**DATE: June 19, 2014**

**TIME: 10:59 AM**

**WSR 14-14-003**

**Note: If any category is left blank, it will be calculated as zero.  
No descriptive text.**

**Count by whole WAC sections only, from the WAC number through the history note.  
A section may be counted in more than one category.**

**The number of sections adopted in order to comply with:**

|   |     |       |         |       |          |       |
|---|-----|-------|---------|-------|----------|-------|
| <b>Federal statute:</b>                 | New | _____ | Amended | _____ | Repealed | _____ |
| <b>Federal rules or standards:</b>      | New | _____ | Amended | _____ | Repealed | _____ |
| <b>Recently enacted state statutes:</b> | New | _____ | Amended | _____ | Repealed | _____ |

**The number of sections adopted at the request of a nongovernmental entity:**

|     |       |         |       |          |       |
|-----|-------|---------|-------|----------|-------|
| New | _____ | Amended | _____ | Repealed | _____ |
|-----|-------|---------|-------|----------|-------|

**The number of sections adopted in the agency's own initiative:**

|     |       |         |          |          |       |
|-----|-------|---------|----------|----------|-------|
| New | _____ | Amended | <u>1</u> | Repealed | _____ |
|-----|-------|---------|----------|----------|-------|

**The number of sections adopted in order to clarify, streamline, or reform agency procedures:**

|     |       |         |       |          |       |
|-----|-------|---------|-------|----------|-------|
| New | _____ | Amended | _____ | Repealed | _____ |
|-----|-------|---------|-------|----------|-------|

**The number of sections adopted using:**

|                                       |     |       |         |       |          |       |
|---------------------------------------|-----|-------|---------|-------|----------|-------|
| <b>Negotiated rule making:</b>        | New | _____ | Amended | _____ | Repealed | _____ |
| <b>Pilot rule making:</b>             | New | _____ | Amended | _____ | Repealed | _____ |
| <b>Other alternative rule making:</b> | New | _____ | Amended | _____ | Repealed | _____ |

## **DECLARATION OF EMERGENCY AND FINDINGS TO SUPPORT EMERGENCY RULEMAKING**

The State Building Code Council (Council), based on the following good cause, finds that an emergency affecting the general welfare of the state of Washington exists. The Council further finds that immediate amendment of a certain Council rule is necessary for the public welfare and that observing the time requirements of notice and opportunity to comment would be contrary to the public interest.

The declaration of emergency affecting the general welfare of the state of Washington is based on the following findings:

The Council adopted the 2012 edition of the International Residential Code (IRC) effective July 1, 2013 with certain amendments. This code regulates the construction methods of single-family and two family (duplex) homes and townhouses. At the time of adoption, no amendments were made to Section M2302 – Photovoltaic Solar Energy Systems. It has now come to the attention of the Council that this code section should be amended due to the potential for extremely negative economic impacts on the Solar PV industry throughout Washington State.

In terms of permit requirements, some local jurisdictions choose to exempt certain rooftop PV systems from building permit requirements, and/or may require only a simple over-the-counter permit. Other jurisdictions require full engineering reports and stamped drawings for all rooftop PV systems; this may add long wait times for project completion – up to 8 weeks - and result in significant expenses for the homeowner, estimated at an additional \$500 to \$2,500 for engineering-related expenses alone. As a result, some homeowners choose not to install the systems at all, given these additional expenses and long wait times for completion.

The industry provides an increasing number of jobs in construction, installation, and manufacturing every year. However, under the conditions cited above, some companies avoid doing business in areas of the state where the permit requirements serve as an impediment to business efficiency, even though there are potential projects available in those areas.

This emergency was brought to the attention of the Council from the WSU Energy program, in collaboration with the solar industry and a group of local code officials to address the need for a code amendment, to be adopted as soon as possible. The proposed emergency rule is estimated to result in a 10 to 30 percent increase in annual sales for the majority of solar installers. In some cases, the increase is likely to be twice that large, as solar contractors in eastern Washington would increase marketing efforts in areas they currently avoid.

The proposed emergency rule would provide exceptions to the roof covering specifications in Section M2302, such that the installation could be shown to meet certain standard requirements. These would include information on rating and listing of test standards for wind speed, maximum snow load specifications, specific dead load limits per square foot, requirements on the specific height of the installation above the roof, and the method of distribution of the dead load so that no excessive weight rests on any area of the roof. By allowing for these exceptions, no engineering reports would be required, and local jurisdictions would not need to require permits for most standard installations. This would result in increased business throughout the state and allow the solar PV industry to continue to thrive and grow.

NEW SECTION

**WAC 51-51-2300 Section M2302—Photovoltaic solar energy systems.**

**M2302.2 Requirements.** The installation, inspection, maintenance, repair and replacement of photovoltaic systems and all system components shall comply with the manufacturer's instructions, sections M2302.2.1 through M2302.2.3, NFPA 70, and the IFC as amended by Washington state.

**M2302.2.1 Roof-mounted panels and modules.** Where photovoltaic panels and modules are installed on roofs, the roof shall be constructed to support the loads imposed by such modules.

EXCEPTION: The roof structure shall be deemed adequate to support the load of the rooftop solar photovoltaic system if all of the following requirements are met:

1. The solar photovoltaic panel system shall be designed for the wind speed of the local area, and shall be installed per the manufacturer's specifications.
2. The ground snow load does not exceed 70 pounds per square foot.
3. The total dead load of modules, supports, mountings, raceways, and all other appurtenances weigh no more than four pounds per square foot.
4. Photovoltaic modules are not mounted higher than 18 inches above the surface of the roofing to which they are affixed.
5. Supports for solar modules are to be installed to spread the dead load across as many roof-framing members as needed, so that no point load exceeds 50 pounds.

Roof-mounted photovoltaic panels and modules that serve as roof covering shall conform to the requirements for roof coverings in Chapter 9. Where mounted on or above the roof coverings, the photovoltaic panels and modules and supporting structure shall be constructed of noncombustible materials or fire-retardant treated wood equivalent to that required for the roof construction.