DOCKETED	
Docket Number:	19-BSTD-12
Project Title:	Town of Truckee Petition to Solar PV Requirement
TN #:	234859
Document Title:	SEIA Comments on Truckee Petition to Solar PV Requirement
Description:	N/A
Filer:	System
Organization:	SEIA
Submitter Role:	Public
Submission Date:	9/21/2020 4:51:55 PM
Docketed Date:	9/21/2020

Comment Received From: Evelyn Butler
Submitted On: 9/21/2020
Docket Number: 19-BSTD-12

SEIA Comments on Truckee Petition to Solar PV Requirement

Please see our comments in our letter.

Additional submitted attachment is included below.

September 21, 2020

California Energy Commission
Sacramento, CA

Subject: 19-BSTD-12, Town of Truckee Petition to Solar PV Requirement

Commissioners and Commission Staff:

Thank you for the opportunity to submit comments on Truckee's petition for exemption from Title 24's solar on new homes requirement. We commend the Energy Commission for providing a fair summary of issues and proposing a thoughtful and detailed solution.

As evidenced by its unanimous support from the Commissions of both the Energy Commission and the Building Standards Commission, we believe that the solar-on-new-homes requirement should apply to all new homes except as outlined in the energy code (such as where the relative energy cost does not meet the prerequisite analysis) or as exempted by specific exception by the proper Commission.

Current Truckee proposal:

Truckee's original petition for an exemption of solar from all new residential construction where roof design snow loads exceed 125 psf in their community is far-reaching. When a new home is designed, it is so designed and engineered to the Title 24 building requirements in effect at that time, which now currently include the provision of an energy-saving solar PV system. The designers and architects, as they do with many other home construction considerations, utilize the appropriate requirements.

When they cannot do so, they can seek advice and relief through the local building requirements, and if needed, the state commissions. Such exemption for the specific parcel and home can then be evaluated. For instances in which the solar system and roof cannot be designed to meet the construction requirements and engineered to accommodate a justified heavy snow load, the appropriate entities can grant such an exemption. However, this should not be done in whole for an entire region where solar has been deployed successfully without the proper analysis. We understand that builders and solar installers can design solar systems and roofs to accommodate the heavy snow loads in Truckee and relevant counties in the Sierras and nearby areas.

We agree with the Commission's assessment that builders in partnership with local solar installers can take the following steps to design solar systems and rooftops that meet snow load structural requirements using a variety of options such as:

(1) employ three-rail mounting techniques,
(2) pitch roof slopes to suitably afford for shedding,
(3) consider modifying the roof design to take into account the PV system, including the use of additional rails or other snow shedding equipment or guards, and
(4) consider modifying the home position and location to facilitate snow shedding and safety from it, while optimizing solar irradiance.

However, we are similarly concerned that the determination of whether the above steps to allow the solar system to meet the snow load structural requirements may present opportunities for undue burden of proof and cost to solar installers, builders, and regulators, resulting in parcels receiving a capricious exemption.

Therefore, we recommend some specific checks and balances to present a reasonable situation where both the building/installer and the regulators can have practical expectations and obligations so as not to overly penalize the homebuyer in determining a reasonable outcome for their new home.

Suggested actions:

Truckee reports their maximum ground slow load to be 483 psf. To determine that a parcel with 483 psf ground snow load is exempt from the solar on new homes requirement, the builder, solar installer and building department should verify that none of the following scenarios are possible:

(A) a roof slope of at least 40 degrees with an unobstructed slippery surface,
(B) a roof slope of at least 50 degrees with full upwind exposure,
(C) a roof slope of at least 55 degrees with partial upwind exposure, and
(D) adding a third rail to one of the first three scenarios to allow a lower sloped roof

To ensure that parcels are receiving a fairly adjudicated exemption from the solar on new home requirement, such as when the system and roof can be designed in a way to accommodate the snow load, we request the Energy Commission evaluate the efficacy of scenarios (A) through (D) above during the 2022 building standards development cycle. Including this evaluation will ensure that only parcels truly unable to have solar effectively designed will receive an exemption.

As part of this evaluation of scenarios (A) through (D) above, we request that study be conducted to verify the recent historical ground snow loads in the relevant areas that were included in Truckee's original proposal so that we can utilize current data for the analysis.

We understand that the data regarding the pounds/foot^2 (psf) of ground snow load is from a 1973 report, whose calculations may not match with current methodology.

We recognize that Truckee and other parts of Nevada County have very high design snow loads. We note that *Report of Snow Load Study of Truckee Quadrangle, Portions of Nevada County, California* linked on the Town of Truckee web site was published in June 1973. This report states: "This snow load report and the recommendations contained herein are keyed to the maximum snow load of record with views only about the last sixty (60) years of data." This indicates acquisition of snow data begins in approximately 1913 (when no computers were in existence) to early 1973 (pre-dating microcomputers and personal computers). In the interest of continual improvement, we would like to work together with the CEC staff and the local jurisdiction to understand if there are any plans or efforts underway to access or query data from 1973 to the present.

Thank you for consideration of our comments.

Sincerely,
Joe Cain, P.E.
Joe Cain, P.E.
Director, Codes & Standards
Solar Energy Industries Association
E-mail: jcain@seia.org

Evelyn M. Butler
Evelyn M. Butler
Sr. Director, Codes & Standards
Solar Energy Industries Association
E-mail: ebutler@seia.org

Rick Umoff
Rick Umoff
Sr. Director & Counsel, California
Solar Energy Industries Association
E-mail: rumoff@seia.org