Using Prevention through Design (PtD) to Protect Solar Panel Installation Workers

Applying Prevention through Design (PtD) to Solar Systems in Small Buildings

Hyun Woo Lee, John Gambatese, and Chung Ho.
CPWR Report, July 2017.

Overview

Solar technology has grown cheaper and more economically attractive in recent years, and a growing number of homeowners are having rooftop solar panels installed. Employees of the small to mid-sized contractors performing this work face unique safety hazards. The research team interviewed workers, contractors and engineers in the industry to identify choices during the design process that can reduce worker exposure to injury during construction. Based on the findings, the team created a short guide for industry use – *Safety Protocol: Prevention through Design for Safety in Solar Installations.*

Key Findings

- Seven Prevention through Design (PtD) attributes were identified for the design and installation of solar systems for small residential buildings, including roofing material, roof slope, roof accessories, panel layout, fall protection system, lifting methods, and electrical system.
- A PtD protocol was developed to guide the implementation of PtD for solar system design and installations. Industry feedback about the protocol indicates that the protocol will contribute to improving the safety performance of solar contractors.
- Most solar contractors expressed a positive attitude toward PtD, suggesting that PtD has a potential to improve safety performance in the industry. However, some contractors suggested that safety enforcement is more important.
- Although all solar contractors acknowledged the importance of safety, actual safety performance varies from contractor to contractor. Some contractors follow safety rules closely, while other contractors still ignore certain safety rules to achieve gains in productivity.

For more information, contact:
Hyun Woo Lee:hyunwlee@uw.edu

Read the report:
http://bit.ly/2xDfxvX

 Production of this Key Finding was supported by Grant OH009762 from the National Institute for Occupational Safety and Health (NIOSH). The contents are solely the responsibility of the authors and do not necessarily represent the official views of NIOSH.

CPWR
THE CENTER FOR CONSTRUCTION
RESEARCH AND TRAINING
WWW.CPWR.COM