

# How to calculate the photovoltaic support truss



## How to calculate the photovoltaic support truss

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### Microsoft Word

It may seem that designing for solar panels is as easy as finding out how much the panels weigh, and adding point loads to their roof trusses either in the design phase, or in a repair.

### Solar Truss Load Calculation Tool

This document provides a load generator tool to calculate loads from a solar array onto structural roof members. It includes inputs for the solar panel dimensions and layout, roof properties, and



### [How to run a structural load analysis for rooftop PV racking](#)

This guide details the critical steps for a structural load analysis of PV racking, from wind load calculations to assessing your roof's capacity for a secure solar installation.

### Structural Criteria for Residential Rooftop Solar Energy Installations

Solar support component manufacturer's guidelines may be relied upon to ensure the array above the roof is properly designed, but manufacturer's guidelines typically do NOT check to ensure that the



### [Determining Maximum Load for Flat Roof](#)



### [for Solar Panel Installation](#)

As I am in a high wind area (design is ~145 mph), I either need to penetrate the roof 50+ times to anchor the panel mounting rails, or use a ballasted system and avoid the penetrations

### **Proper Loading for Solar Panels**

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### [Solar Array Weight and Loading Calculation Worksheet](#)

Calculations - The weight of the complete system, including all of the working fluid in thermal systems, the weight of the complete system per square foot, and the concentrated load at each mounting

### [Detailed Structural Commentary for Rooftop PV Arrays for the](#)

D.6. The attachment/mount/stand-off spacing perpendicular to rafters or trusses does not exceed 4'-0", and attachments in adjacent rows are staggered where rafters or trusses are at 24" or less on center.



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