

## PEES Power Systems

# Photovoltaic panels installed on wooden beam houses



## Overview

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Recent research has demonstrated the viability of prefabricated timber-framed facades with integrated PV modules, offering a seamless and minimally invasive way to incorporate renewable energy generation into both new constructions and retrofit projects. SunCommon —a B Corp-certified company offering solar and other clean-energy solutions throughout Vermont and New York's Hudson Valley region—debuted its timber-framed solar canopy in 2017. Solar canopies, which are structures topped with solar panels, can be used as carports (and EV-charging). This is a strong, durable, and simple ground mounting system for PV panels. The PV panels are mounted to commercially available aluminum rails made for easy mounting of PV panels. The rails are supplied by companies like IronRidge or. But while timbers create dramatic interiors and strong frameworks, they don't inherently provide the thermal mass or airtightness needed for optimal energy performance—particularly when it comes to harnessing the sun's energy in a passive way. The base will be four concrete piers, supporting two beams (two-ply 2x12) with 2x8 purlins supported between the beams. I'm planning to use MCA-treated wood, which supposedly less toxic to metals (and people).

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Solar



### mounting panels to treated-wood frame

I am proceeding with a 4+kW ground-mount installation built on a base of treated wood. The base will be four concrete piers, supporting two beams (two-ply 2x12) with 2x8 purlins supported ...

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### Photovoltaic panel wooden beam installation

As specialists in the field, we offer the widest range of mounting system for photovoltaic panels on the market, compatible with all types of buildings, roofs, and canopies made of metal or wood



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### Solar Panels and Timber Frame Homes

Timber frame homes built with insulated concrete form foundations and structural insulating wall and roof panels are extremely more efficient than stick-built homes.



## Timber-Framed Solar Canopies

Solar canopies, which are structures topped with solar panels, can be used as carports (and EV-charging stations), patio coverings, woodsheds, and places to house large equipment ...



## Structural Implications of Mounting Solar Panels on a Residential ...

To present the process by which a structural engineer might evaluate a buildings ability to support solar hot water or photo voltaic equipment. To provided examples of drawings and calculations that could ...

## A simple DIY Timber Frame PV Ground Mount

These pictures were taken at an open house for a home built by Oasis Hybrid Homes near Emigrant, MT. A very nice home with a good thermal envelope, rain catchment, grey water ...



## Integrating Solar Technologies With Timber Framing Systems



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## Timber-Framed Solar Canopies

The company uses local contractors to erect the timber framing and to install the solar-panel system and electrical connections, which are typical for a solar installation.



## Double Your Space w/Unique Solar Pergola or Pavillion

Our timber kits, combined with flexible solar panels, open your house up to endless possibilities for solar panel installations. You can transform your outdoor living area into a renewable ...

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## Incorporating Passive Solar Into My Timber Frame House

Whether you're just starting to plan your dream home or looking to retrofit an existing structure, the key is to blend

timeless timber framing with modern,  
climate-responsive strategies.



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## Contact Us

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