PV PACKAGING INSTRUCTIONS FOR RECYCLING & VALUE RECOVERY

For Framed Silicon-Based Panels Only

Follow this guide to safely prepare your panels for shipping and protect their value

SOLAR WASTE SOLUTIONS
VALUE RECOVERY EXPERTS

WELCOME

Thank you for taking the important steps to safely recycle your solar modules. Safety matters at every stage, including the end-of-life process. Ensuring your modules are properly stacked, packaged, and shipped starts with you. This guide is designed to help you and your team make shipping as smooth and efficient as possible, saving your company labor costs while maintaining the value of your panels for their next lifecycle stage, resulting in the best recycling outcomes when we receive your shipment. We appreciate your efforts to ensure all solar modules are stacked on secure pallets or dunnage and are in good condition, following the best practices outlined here to plan for maximum efficiency.

STEP ONE

GATHER THE RIGHT MATERIALS

To package your panels in a way that preserves their reusability and recyclability, you will need the following items before you can start stacking, strapping, and loading your panels.

- PALLETS - Good, sturdy panels with standard dimensions
- STRAPS - Nylon or polyester
- WRAP - Commercial shrink wrap
- LABELS - Found at the end of this document
- EQUIPMENT - A forklift or skid steer and pallet jack for loading the truck

STEP TWO

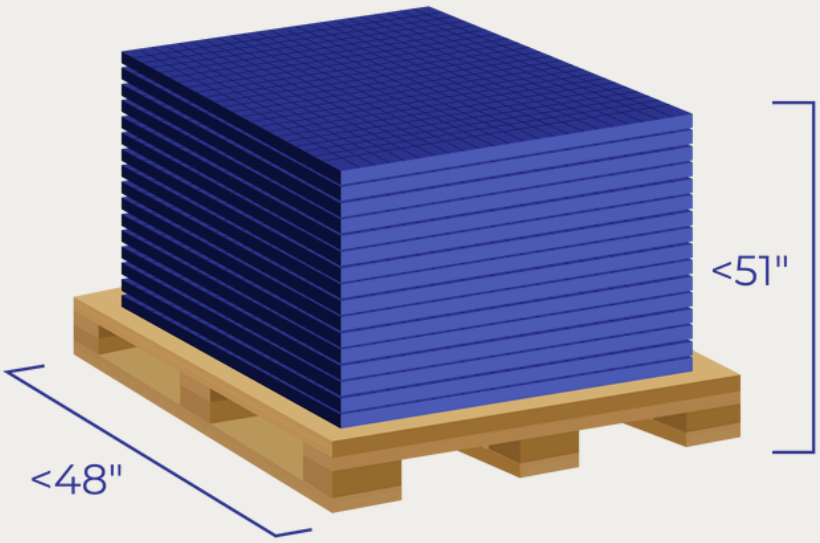
STACK PALLETS NEATLY

Use sound pallets with standard dimensions.

Pallets should be at least 1/4 inches wider and 1/4 inches longer than the dimensions of the solar panels. Ensure pallets are no more than 48 inches wide. For standard truck loading, which has a width of 102 inches, pallets that are 48 inches or less in width will allow for safe loading and unloading of two pallets side by side. Please inform the Solar eWaste Solutions Team if you need to use pallets wider than 48 inches. Stack the modules with the glass side facing up to prevent water accumulation, which could lead to issues during transport and recycling.

Place broken glass modules and similarly sized modules on the same pallet for easier handling. Place broken glass modules on separate pallets from intact ones. When stacking different types of panels on the same pallet, ensure that the largest modules are placed at the bottom and the smallest at the top, arranged to prevent shifting or tipping. The combined height of the pallet and modules should not exceed 51 inches.

For most shipments, double stacking is necessary to optimize the number of modules per truck. To allow for double stacking, the total height of the pallet, including the modules, should not exceed 51 inches. Do not exceed stacking beyond two pallets worth of panels high.



Please note: Failure to follow the specifications outlined in this manual may result in additional handling and/or freight charges.

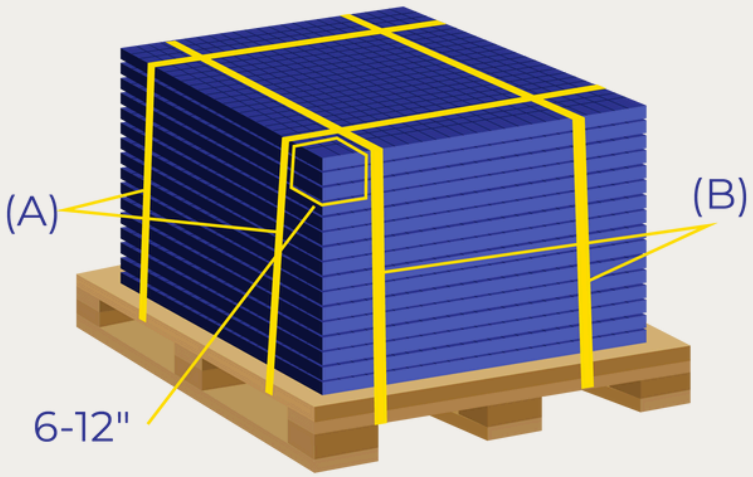
Solar eWaste Solutions reserves the right to apply any commercially reasonable fees if these specifications are not met.

STEP THREE

STRAP & SECURE PANELS TO PALLETS

Secure the modules to the pallet using nylon or PET bands.

Be sure to strap them in a way that does not obstruct or interfere with the pallet jack or forklift (A) (B) forks. Each pallet should have at least four straps: two along the short sides (A) and two along the long sides (B). Position the straps about 6 to 12 inches from each corner.

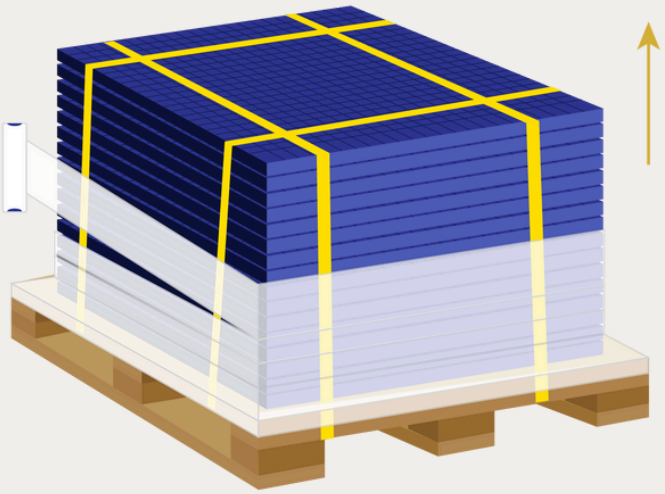


STEP FOUR

WRAP BROKEN MODULES

If module glass is broken, the entire pallet must be wrapped using commercial shrink wrap.

If the module glass is broken, the entire pallet must be fully wrapped with commercial shrink wrap. Apply several layers of shrink wrap from the base to the top of the stack, ensuring full coverage. Secure the loose end of the wrap with packing tape or another method to prevent it from coming undone during transport.



Please note: Certain projects may require a customized load plan. If a site-specific load plan is provided, be sure to follow the instructions outlined in that plan carefully.

STEP FIVE

LABEL YOUR PALLETS

Print and adhere labels to each pallet.

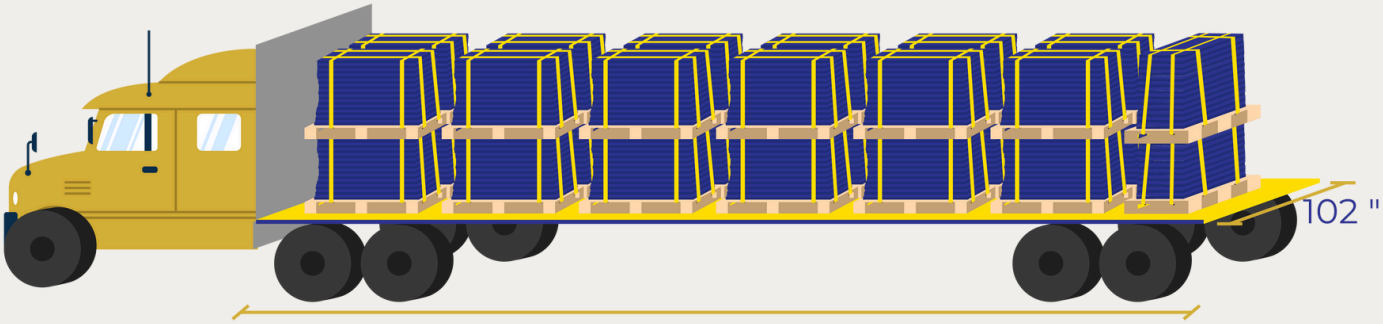
Print and attach a label to each pallet. At least one label should be securely fastened to each pallet using packaging tape or a similar material, ensuring the entire label is adhered. Use enough tape to keep the label intact throughout transportation.

STEP SIX

LOAD YOUR PALLETS

Print and adhere labels to each pallet.

The standard trailer length is 53 feet, which typically accommodates 18 double-stacked pallets, totaling 36 pallets per truck. Pallets should be arranged to ensure easy access for a pallet jack or forklift. To prevent tipping or damage to the lower stack, place a layer of cardboard or plywood between the stacked pallets. Ensure there is adequate space between pallets to facilitate efficient loading and unloading.

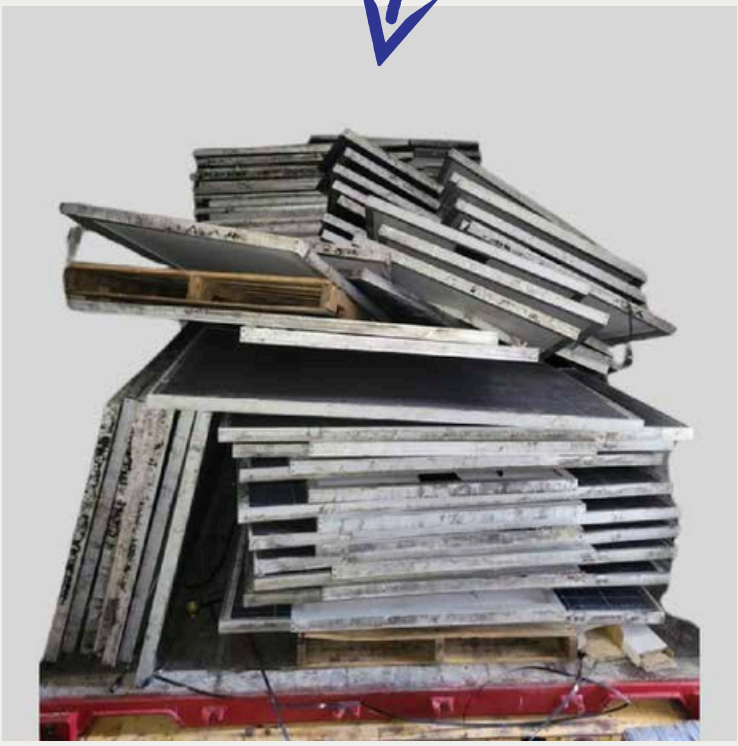


Standard 53' **flatbed trailer**

DO THIS

- Select pallets that are the correct size and in good condition; do not use cracked or damaged pallets.
- Separate modules with broken glass from those with intact glass.
- Stack around 25 modules per pallet, ensuring the total height does not exceed 51 inches.
- Secure the modules to the pallet using straps.
- Insert cardboard or other protective materials between double-stacked pallets.
- By adhering to these instructions, you can typically load between 500-900 modules per truck trailer.

NOT THAT



- Mix panel sizes with larger panels placed on top
- Panels not centered on the pallet
- Place broken and intact glass modules on the same pallet
- Loose straps obstructing forklift access
- Use fewer than four straps to secure the load
  Use damaged or unstable pallets
- Stack pallets more than two high or above 51 inches
- Not use protective material between stacked pallets
- Inconsistently load truck, leaving large gaps between pallets or pallets placed too closely together/touching

Pallet #	
Module Quantity	
Broken Glass (Yes/No)	

Customer Order Number	

Module Manufacturer	Model Number