

END-OF-LIFE SOLAR PLANNING RESOURCES

VOL. II



Written by Dr. Janette Freeman



“

If recycling is in the future, then we must focus our efforts on mitigating negative impacts to our community while protecting our environment.

Tony Cardenas ”



Dr. Janette Freeman
VP of Business Development

Forward to the **SECOND EDITION**

When we released the first edition of this guide, solar panel recycling was still a developing conversation. Awareness was growing — but the infrastructure, policy, and industry momentum were still catching up.

Now, things are changing. Fast.

States like Texas, California, and Washington are advancing policies that make recycling a requirement. Companies are realizing that sustainability doesn't stop at installation — it includes what happens when panels reach the end of their useful life. And more than ever, customers and investors are asking hard questions about long-term responsibility.

That's why this second edition exists.

We've updated it with the latest policy changes, market innovations, and real-world insights from the front lines of panel reuse and recycling. We've also included practical tools — like an EOL planning checklist and policy template — to help you take meaningful action, not just gather information.

The energy transition is a movement. And with millions of panels coming offline in the next decade, how we handle end-of-life will define our commitment to true sustainability. **Thank you for being part of the solution.**

— **Dr. Janette Freeman**
#RecyclingEvangelist



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1 The Solar Waste Challenge

There is the opinion that recycling costs too much. Despite the high costs of recycling, proponents argue that the environmental and health benefits of recycling outweigh the costs. Saving our environment for our future generations to come should be our main priority. And for us in the renewable energy industry, it is aligned with our core missions.

In this informational e-book on the subject, I hope to break it down, provide ways to save, and help you to establish a plan that will become useful when the time comes for you to dispose of your used solar panels.

There are concerns that go with solar panel end-of-life planning procedures, such as million-dollar fines for incorrect toxic waste removal, and huge bills for recycling and freight. Every environmentally conscious solar developer, contractor, installer and panel manufacturer wants and needs to be aware of facts and solutions, but since this is a relatively new field, many are not as knowledgeable on this subject.

“

You cannot get through a single day without having an impact on the world around you.

What you do makes a difference and you have to decide what kind of a difference you want to make.

Jane Goodall

”





The Growing Problem

According to the International Energy Agency, over 78,000 solar panels are being installed every hour around the world. This rapid deployment is expected to grow year by year and, as it does, so will the volume of end-of-life modules. On the one hand, it's terrific to watch clean energy become more efficient and available to everyone and observe the world economy slowly become less reliant on fossil fuels. So many possibilities come into fruition as we switch to greener and cleaner energy.

However, because of solar energy's many good qualities, it can be easy to forget about a growing concern in the solar industry, one that will have a global effect: solar panel end-of-life.

A deliberate and regulated plan to ensure that this material is repurposed and recycled properly is necessary to encourage a circular economy and guarantee that the sustainability strides of our industry are not erased through the destructive scrapping of materials.

Fortunately, regulatory bodies are beginning to pay attention to this incoming wave of aging PV systems. On March 18 of 2022, the U.S. Department of Energy released its action plan to enable responsible handling of EOL photovoltaic materials.

Through their Solar Energy Technologies Office (SETO), the DOE plans to support hardware research to reduce the cost of and promote module recycling, create a database of aging systems, reach out to stakeholders, and more. Additionally, decommissioning policies and guidelines have already been growing at the state and local AHJ level. Fifteen U.S. states have enforced statewide solar decommissioning policies enforcing everything from financial assurances (such as decommissioning bonds) to mandatory recycling.

There is no question that more regulations around the proper handling and disposal of end-of-life systems are going to be popping up around the U.S. to help tackle this issue.

As an industry, we must all take responsibility in ensuring that sustainable end-of-life management is being thought through at the beginning of a project, as well as following through at its end.



The heart of the issue:

The solar waste recycling programs and current global recycling policies are not prepared to handle the rising influx of panels.

As a matter of fact, solar panel disposal is struggling with what we have now. Thousands of solar panels are headed toward landfills. As mentioned previously, if things don't change fast enough, we could be approaching millions of tons of solar waste as soon as 2050, if not sooner.



The environment is where we all meet; where we all have a mutual interest; it is the one thing all of us share.

Lady Bird Johnson



The solar industry cannot claim to be a clean energy source if it leaves a trail of hazardous waste. But, absent a cogent PV recycling policy, the United States risks sending millions of solar modules and tons of toxics to landfill in the coming years.

PV Magazine



What is a solar circular economy?

- ▶ Using repurposing solutions for used solar panels, until they are literally at their end-of-life
- ▶ Seeing that they are recycled, allowing those recycled materials to be made into other things

2 Lifespan of a Solar Panel

What is the real lifespan of a solar panel and what determines if it's literally at its end-of-life?

Despite being durable, solar panels do not last forever, and once they reach their end-of-life, their effectiveness will have decreased significantly.

A solar panel's lifespan maxes out at about 20-30 years, and that's a best-case scenario. Since solar panels are outside all year round, they are potentially susceptible to weather and elemental damage from nature.

To put it simply, we are currently injecting an incredibly beneficial product into the market without a place for it to go when it becomes obsolete. The repercussions for doing this are obvious, yet we still refuse to make a significant global change, and it's hardly something we haven't done before.

Further, researching best practices for end-of-life procedures can be time-consuming, exhausting, and overwhelming.

Every solar project has a different end-of-life point definition. It might be one of these examples:

1. The solar panel gets broken or damaged during installation,
2. The physical parts are not working efficiently,
3. It could be your desire to upgrade your existing solar PV technology,
4. You might need to upgrade to ensure compliance with a new solar policy, or
5. Weather damage.

In all these instances you must decide how you will handle your used solar panels. Whatever your reason is that it creates the need for end-of-life solar panel solutions you can plan on how to move forward now and participate in supporting a circular economy.



Getting Started

There is no doubt that the costs of disposing of solar panels properly can be prohibitive. Freight alone is a major expense in hauling away hundreds, if not thousands, of modules from a site that has just been installed, or has been weather damaged, decommissioned or repowered. Using a company that can handle your recycling, sorting for reuse, and managing the freight is the easiest and usually the most cost-effective method, once you make the commitment to not landfill.

3 Reuse, Reduce, or Donate? How to tell the difference?

REUSE



Get Paid for Solar Panels That Can be Reused

There are two very important factors to consider with your module's end-of-life. First, is it truly 'end-of-life?' How do you know? One easy way is to see if the module's glass is cracked, broken, or shattered. If it is, it is not usable, and therefore not refurbish able – and not of value. It must be recycled.

But what about those other panels that are not broken glass? Maybe they are not as efficient as they once were or have broken frames or junction boxes. Most of the damage that makes the panel ineffective for your use is fixable. After being refurbished this same panel provides service to many people, who could not otherwise afford solar.

Uses for Refurbished Solar Panels

Refurbished solar panels are resold very inexpensively making it affordable for those that normally couldn't afford new solar. DIY'ers, RV'ers, off-gridders, and international customers are lining up for used panels. These used panels are typically used for off-grid applications. Because they are sold very inexpensively, they can add value to those suffering from energy poverty.

What are your used solar panels worth?

The value depends upon a number of issues:

- ▶ Generally, they are 'salvage' value pricing from \$.03/ppw - \$.06/ppw for older, but useable, decent condition modules i.e., decommission.
- ▶ Used, but not aged, and in good condition, will go higher \$.08/ppw - \$.10/ppw.
- ▶ All pricing is negotiated based also upon freight expense considerations and recycling costs of any additional damaged modules.



Recycling

Recycle The Solar Panels That Can't Be Reused

Even in today's world, recycling solar panels is complex and expensive. As time goes on, many people and companies are working on solutions to make it more accessible and affordable. It is a growing need in the industry as more solar panels come to their end-of-life.

It will take a common commitment to those in the renewables industry to tackle this issue. We will need to work together to create greater awareness, provide new solutions, and/or budget for and making the choice to recycle rather than landfill.

Proper solar panel recycling requires a specialized service. Each panel comprises a variety of different materials.

Solar photovoltaic panels are arranged like a sandwich, with about 90% of them using silicon in the center as the semiconductor material. Layered on top of the silicon are thin strips of conductive metal that collect the cells' moving electrons and usher them into the panel's copper wiring. The cells are protected with EVA plastic and a thicker glass on top and usually a PET plastic as back sheet protection. All layers are then encased in an aluminum frame, which is what physically connects and interfaces with solar racking systems.

With this material makeup, over 80% of a module's weight consists of glass and aluminum, which are common and easily recyclable; however, the process of deconstructing the panels is complicated and intensive. Due to this, recycling in the United States is expensive and often leads to owners either landfilling the equipment themselves or putting the onerous on fragile communities through donations without planning for the proper end-of-life solution.

The good news is that awareness of this urgent need is growing and leading to state-of-the-art recycling technologies, appropriate government regulations, and economic incentives to ensure that measures are in place to create a circular, clean solar lifecycle.

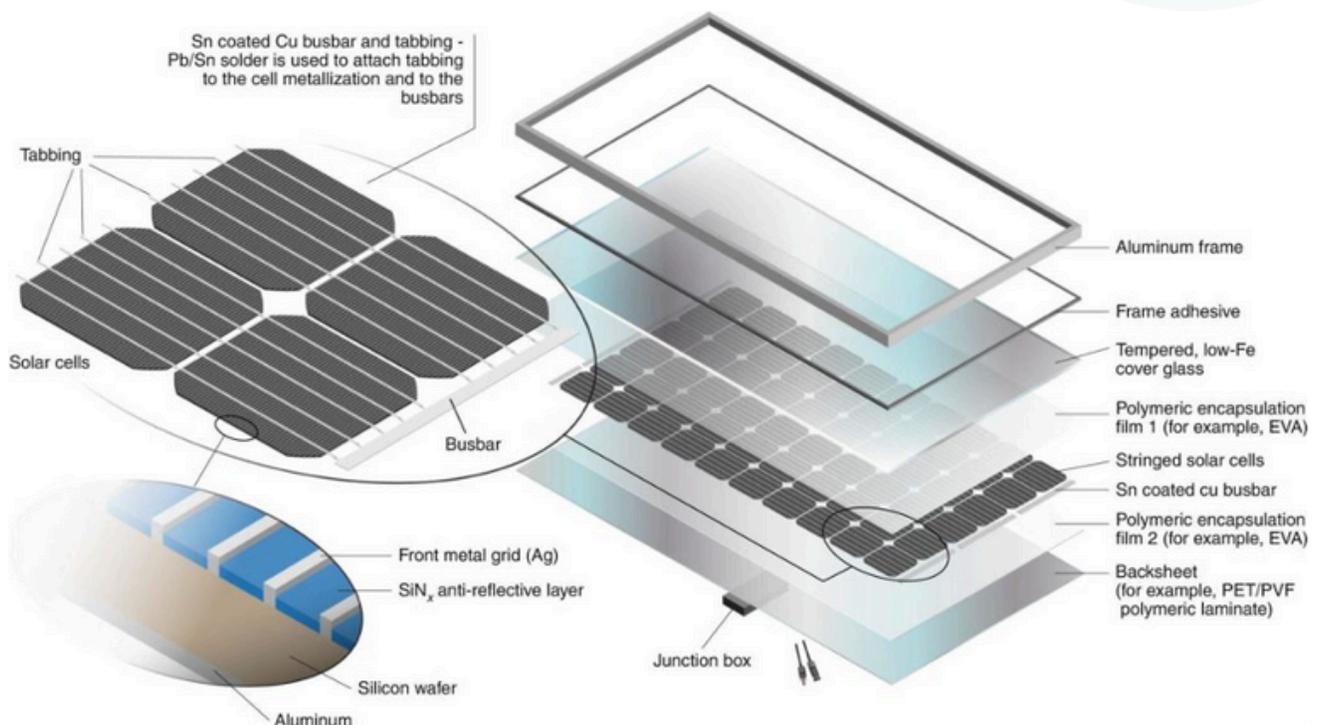


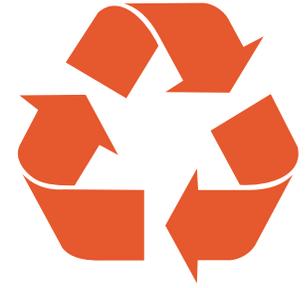
Recycling Cont.

Proper solar panel recycling requires a specialized service.

Each panel comprises a variety of different materials as mentioned above. The process is illustrated by these steps:

- ▶ Each solar panel is separated,
- ▶ Each part is processed separately depending on the material,
- ▶ The glass remnants contribute to cement or glass products, and
- ▶ The aluminum goes on to be reused in other ways.
- ▶ Solar cells and remaining back sheet go through another process to separate the waste streams.
- ▶ Coated copper wire is extracted, and the recycler sends to a partner company for final refinement into tin, copper, silver and lead.





Recycling Cont.

Why Are There Recycling Costs?

At this time, there is a cost for proper recycling, as the value of the materials do not exceed the cost to process them.

There are some recyclers that will recycle ONLY aluminum and landfill the rest of the panel (80%). That still leaves a great deal of wasted materials, possible landfill hazard to water supply and, while a cheaper alternative, can cause future problems for companies that are bound to environmental 'right actions.' If the cost of recycling is considerably lower than standard industry pricing (below), you need to ask about their process and see their certifications. It takes special equipment to manage solar panels and there are only a few that can handle that.

Using a company that landfills 80% of your panel could cause future liability. Waste can be tracked and if there are future problems in a particular landfill with toxic runoff, you don't want your company's name associated with the landfill, which could mean huge fines.

As of 2025, the recycling of PV solar panels may run anywhere from \$.25/lb. and up. That ranges from \$12-\$20 per panel depending on the type/weight.

One U.S. solar manufacturer – First Solar – has developed in-house recycling capabilities, currently limited to processing the company's own thin film, cadmium telluride panels. They have the following regulations on what must be done before sending the panels for recycling:

- ▶ Junction boxes must be removed
- ▶ Each serial number on every panel must be scanned into an app
- ▶ They must be stacked and palletized in a particular way
- ▶ They don't take them if there are chunks of glass missing or the glass is broken badly

There are very few other companies that take First Solar panels, including Fabtech.



Recycling Cont.

Make it a company policy to recycle your end-of-life solar panels before rushing straight to the landfill – or at the very least, research what it would cost, especially when you consider refurbishing options.

Also, make sure that you get a **Certificates of Recycling** for your recycling and save it in your records.

If you work consistently with one recycling/refurbishing partner, they will also have a record of your certificate should you need a copy in the future.





Donate

If your solar equipment is in good condition, and you don't want to sell it, or need to offset recycling costs, there are a few non-profits throughout the country who will happily take the modules as a charitable donation. The benefits of going this route include receiving a charitable donation certificate for your material, having a positive impact on local communities, and creating a marketable story for your company and the non-profits you work with.

There are also some caveats to this solution. There are some shady characters in the industry who will offer to take your panels for no charge or a donation receipt and 1) Glean the aluminum value from scrap dealer and landfill the rest or send non-working modules into third world countries passing along the waste issues to them. That is why it is important to do your due diligence around this or work with a reputable partner who can provide recommendations.

By working with a company that can handle all three of these solutions, they can work with you to determine what is best for you and that you are completely protected from future liability.



In our every deliberation, we must consider the impact of our decisions on the next seven generations.

Iroquois Maxim



4 Preparing for Recycling & Reuse

Choosing a recycling company

Note that not all recycling processes are the same. Some recyclers may have more sustainable processing techniques.

- ◆ Ask about material diversion to landfill.
- ◆ Check that the recycler has the appropriate R2 or e-Stewards accreditation in addition to complying with EPA permitting requirements
- ◆ Ensure that you will receive a Certificate of Destruction/Recycling for the products sent.
- ◆ Using your organization's sustainability guidelines, check if the recycler complies.
- ◆ Find out if they offer credit for reuse (salvageable panels.)

Gather Information

Since there are so many variables, in order to get a good quote and options you will need to gather some basic information before calling a company:

- ◆ Type of PV modules with model number.
- ◆ Quantity (or close estimate.)
- ◆ Condition of the panels. Identifying details regarding the condition of the equipment is helpful for advanced preparation. Are the frames bent or damaged? Is there glass breakage? What percentage of the panels do you think are broken glass? How long have the modules have been in storage, or how old are they? Pictures are good to have.
- ◆ Shipping location zip code
- ◆ Is there a forklift onsite?

“ —
The Earth is a fine place and worth fighting for.
Ernest Hemingway — ”



4 Preparing for Recycling & Reuse

Preparing Panels for Shipment

If it is possible, it can be economically advantageous if you can sort your panels into broken glass and unbroken glass. If not, that is understandable.

Palletizing: The panels should be palletized flat on a sturdy pallet, similar sized as the panel for secure purposes.

It is recommended that you stack the pallets between 25 and 35 modules high to make them economical to ship and to avoid any further damage to the panels.

Too few modules on the pallet and the economy of the space is not optimized. Too many modules and there may be problems with shifting or moving panels, which could increase damage or provide difficulty in fitting the pallet in the truck due to height restrictions, etc.

The average truckload of PV modules, when palletized as suggested can hold between 12-16 pallets and weigh between 18k-20K lbs.

Band the modules to the pallet both length and width ways to keep them secure. Shrink wrapping is called for when the glass is broken and will help prevent shifting or allowing broken glass to escape, causing 'clean up' issue for the transportation company. Check with your recycler as to how they want them palletized. They need to be unloaded safely with a forklift.

Stack like-size modules together whenever possible.



5 Updated U.S. Policy & Legislation (2023–2025)



Policy &
Legislation



Texas in
the Lead



Other
States



Federal
Action

Recycling Requirements Are Gaining Momentum Across the U.S.

Since the original publication of this guide, several key developments have accelerated the push toward responsible solar panel and wind component recycling. What was once a voluntary best practice is now becoming a regulatory requirement in many jurisdictions.

Texas Leads with Landmark Legislation

In 2025, the **Texas House of Representatives** passed **HB 3228**, a bill requiring that all retired solar and wind components be **recycled or properly disposed of** at the end of their life.

Key elements of the legislation include:

- Mandated recycling for all recyclable components
- Responsible disposal of non-recyclables
- Requirements for companies to disclose decommissioning and recycling costs in landowner agreements
- Financial assurances and reporting tied to recycling performance (via HB 3229)

Why it matters: Texas is projected to install more solar than any other state over the next five years — this legislation sets a precedent for sustainable end-of-life practices in one of the largest renewable markets in the country.

5 Updated U.S. Policy & Legislation (2023–2025)



Policy &
Legislation



Texas in
the Lead



Other
States



Federal
Action

Other States Are Taking Note

Several other states are now exploring or enacting solar recycling and EOL (end-of-life) requirements:

- **California:** Adopted solar panel universal waste classification in 2022, allowing easier tracking and recycling. Further regulatory proposals are in motion to reduce landfilling of solar waste.
- **Illinois:** Launched a task force to study solar panel recycling and develop policy recommendations.
- **Washington:** Requires PV manufacturers to have a recycling stewardship plan to sell panels in the state.

Many of these states are also tying recycling requirements to permitting and interconnection policies, which means that compliance will soon be part of project approval processes.

Federal Action Is Growing Too

The U.S. Department of Energy continues to support solar recycling R&D through its **Solar Energy Technologies Office (SETO)**. Its stated goals include:

- Developing low-cost, high-efficiency recycling technologies
- Encouraging manufacturers to design for disassembly and recovery
- Advancing national best practices for panel reuse and material recovery

5 Updated U.S. Policy & Legislation (2023–2025)

Recommended Resource: *Legislation Tracker*

For companies operating across multiple states, staying informed is essential. We recommend bookmarking and reviewing:

- [SEIA State Solar Policy Tracker](#)
- [NREL End-of-Life PV Resources](#)

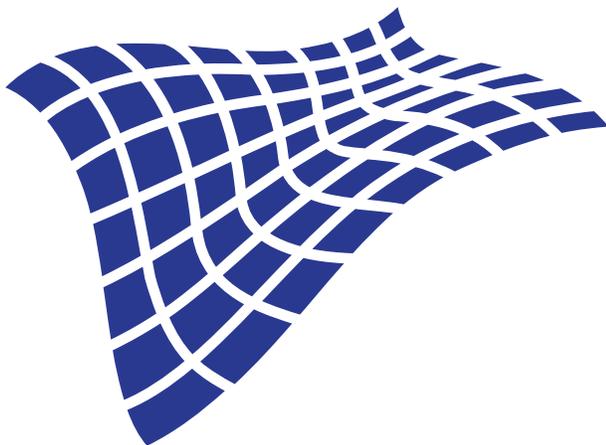


Takeaway:

The Regulatory Shift Has Begun

If your company hasn't yet created an end-of-life recycling plan, now is the time. Regulations are evolving rapidly, and companies that stay ahead of the curve will be best positioned to:

- Avoid costly retrofits or fines
- Improve ESG performance
- Lead the industry in sustainable innovation



6 Environmental and ESG Benefits of Recycling

Solar panel recycling isn't just about responsible disposal — it's a critical part of ensuring that clean energy stays truly clean throughout its lifecycle. When we commit to proper end-of-life practices, we gain measurable environmental and economic value, while also strengthening ESG performance and long-term credibility.

Here's how:

Materials Recovery:

Recycling allows us to recover and reuse valuable materials found in solar panels, such as:

- **Glass** (about 75% of most panels by weight) — reused in construction or glass products
- **Aluminum frames** — highly recyclable and energy-efficient to remanufacture
- **Silicon** — can be purified and reused in electronics or new panels
- **Silver and Copper** — rare, finite resources that support multiple clean technologies

Recovering these materials reduces the need for new mining, preserves natural ecosystems, and supports a circular supply chain.

Emissions Avoided

By recycling panels instead of landfilling them:

- We reduce **greenhouse gas emissions** associated with raw material extraction and manufacturing
- We minimize **transport and landfill emissions**
- We support the long-term decarbonization of the energy sector by keeping clean technologies truly clean

Plus, the energy savings from reusing materials like aluminum and glass are significant — manufacturing from recycled aluminum, for instance, uses up to **95% less energy** than from raw ore.

6 Environmental and ESG Benefits of Recycling

ESG Reporting Improvements

For solar developers, asset owners, and energy companies, clean end-of-life practices support stronger ESG performance:

- **Environmental (E):** Reduces waste, lowers carbon footprint, conserves resources
- **Social (S):** Demonstrates ethical responsibility, supports green job creation
- **Governance (G):** Shows transparency and accountability through documentation and tracking

Investors and stakeholders increasingly expect data-backed sustainability performance — and recycling provides tangible, reportable outcomes.

Investor & Stakeholder Transparency

Clear documentation of recycling and reuse activities — such as Certificates of Recycling, traceability logs, or third-party audits — helps companies:

- Build trust with stakeholders
- Stand out in competitive ESG assessments
- Attract impact-focused investors
- Meet procurement and RFP requirements for government or large-scale buyers

As the clean energy sector matures, transparency around full lifecycle impact is becoming a baseline expectation — not a bonus.

Bottom Line:

Recycling solar panels supports more than just the planet — it supports your project's long-term credibility, compliance, and value.

It turns waste into resources.

It turns responsibility into opportunity.

“

The Earth will not continue to offer its harvest, except with faithful stewardship. We cannot say we love the land and then take steps to destroy it for use by future generations.

John Paul II

”





7 Solar Panel End-of-Life Policy Template

Join the Commitment to Solar Panel Recycling & Reuse

As the solar industry matures, how we handle end-of-life panels is becoming just as important as how we install them.

Before sending used panels straight to the landfill, consider what it would look like to make recycling and reuse a formal company policy. You may be surprised by how affordable and accessible responsible options can be — especially when refurbishing or resale are part of the equation.

Why create a solar recycling/reuse policy?

Showcase your values.

Let your marketing and PR reflect your true commitment to sustainability and the circular economy.

Reduce future risk.

Avoid regulatory or reputational issues tied to improper disposal.

Strengthen your ESG profile.

A clear end-of-life plan supports strong Environmental, Social, and Governance reporting — and investor confidence.

Lead by example.

Become known in your network and industry as someone who's part of the solution.

Do what's right.

There's peace of mind in knowing your clean energy mission goes all the way through.

Creating a policy is easier than you think — and we've included a simple template below to help you get started.

Together, we can make solar sustainable from first watt to final watt.





7 Solar Panel End-of-Life Policy Template

Sample Solar Panel End-of-Life (EOL) Policy

Purpose

This policy outlines [Company Name]'s commitment to responsibly manage all solar photovoltaic (PV) modules at the end of their operational life through reuse, recycling, or environmentally compliant disposal.

Scope

Applies to all PV modules installed, decommissioned, stored, or transported by [Company Name] in the course of project development, O&M, repowering, or decommissioning activities.

Guiding Principles

- Prioritize reuse of viable modules when possible
- Recycle non-viable panels through certified recycling partners
- Avoid landfill disposal unless no other options exist
- Maintain compliance with federal, state, and local regulations
- Track and document EOL processes for ESG and reporting purposes

Procedures

1. Assessment: All panels are evaluated at decommissioning for potential reuse or resale
2. Sorting: Panels are separated into "reuse," "recycle," or "disposal" streams
3. Partnerships: Only vetted recyclers and reuse vendors are used (with certifications)
4. Documentation: Certificates of Recycling/Reuse are obtained and archived
5. Reporting: Annual EOL summary shared with stakeholders as part of ESG reporting

Review & Updates

This policy will be reviewed annually to align with industry standards, legislation, and operational needs.

Approved by: _____

Effective Date: _____



8 EOL Planning Checklist

Use this checklist as a quick reference during project planning, repowering, or decommissioning.

Pre-Project or Pre-Decommissioning

- Inventory all panels and determine approximate age/wattage
- Identify if panels are lease-owned or resale-restricted
- Partner with a recycler that provides proper documentation and downstream traceability
- Determine if any panels can be reused, donated, or resold

During Decommissioning

- Sort panels into:
 - Reuse / Resale
 - Recycling
 - Disposal (only if necessary)
- Use proper palletizing and protection to avoid transport damage
- Label and track batches for traceability

Post-Processing

- Collect Certificates of Recycling or Reuse
- Document final quantities and destinations
- Include in ESG or corporate sustainability reporting
- Review process and improve for future cycles

9 Frequently Asked Questions



Whether you're a solar developer, EPC, or asset manager, questions come up again and again. Here are some quick answers to the most common ones we hear.

1. How do I know if my solar panels qualify for reuse instead of recycling?

If the panels are unbroken, fully functional, and typically over 325W, they may still have resale value and could be reused.

- Working
- Structurally intact
- Within acceptable performance tolerance

Panels with broken glass, cracked back sheets, or outdated, low-wattage ratings are usually not viable for reuse and should be responsibly recycled.

2. What does solar panel recycling recover?

Recycling facilities can recover up to 95% of panel materials including:

- Glass (turned into cullet or new products)
- Aluminum frames
- Silver, copper, and silicon from cell components
- Plastic and polymer layers (if separated cleanly)

3. Is it more expensive to recycle than landfill?

Yes — but only in the **short term**. Landfilling may cost less upfront, but:

- It risks long-term environmental liability
- It disqualifies you from ESG claims
- It leaves valuable materials unrecovered
- Responsible recycling is a smart long-term investment.

9 Frequently Asked Questions

4. Can I donate usable panels?

If the panels are unbroken, fully functional, and typically over 325W, they may still have resale value and could be reused.

- Nonprofits
- Off-grid projects
- Educational programs
- International development partners

This helps extend the useful life of the panel and makes solar more accessible.

5. Do I get documentation when I recycle panels?

Reputable recyclers should provide a **Certificate of Recycling**, which documents:

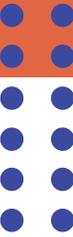
- Quantity of panels recycled
- Location/facility
- Date of processing

Materials diverted from landfill.



10 Diverting Thousands of Solar Panels from the Landfill

Case Study



Project: Large-Scale Rooftop Decommission

Panels Involved: 4,000+ Trina 285W modules

Original Plan: Landfill or recycling at significant cost

Outcome: Panels reclaimed and reused — zero disposal costs

When a national retailer decommissioned a portfolio of rooftop solar arrays across several store locations, over 4,000 Trina 285W solar panels were removed and marked for disposal. The original plan included either landfilling the modules or recycling them — at an estimated cost of over \$63,000, plus an additional \$12,000 in freight.

Fortunately, the company chose a more sustainable, community-driven solution.

The FabTech Solution

Rather than sending the panels to the landfill or paying tens of thousands to recycle them, Fabtech stepped in and assessed the condition of the panels. The modules were unbroken, functional, and ideal candidates for the secondary market.

Instead of disposal, Fabtech coordinated the logistics and redirected the panels to reuse — at no cost to the client.

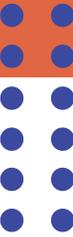
- ◆ No disposal fees
- ◆ No freight costs
- ◆ No landfill impact

The panels were sold inexpensively to hundreds of individuals and small-scale users — a powerful example of circular economy principles in action.



10 Diverting Thousands of Solar Panels from the Landfill

Case Study



Real World Impact

Thanks to reuse, these panels were given a second life powering:

- ◆ 🏠 Off-grid homes
- ◆ 🌱 Small farms
- ◆ 🚐 RVs and mobile power systems
- ◆ 🔧 DIY solar projects around the country

This win/win approach didn't just save the company money – it amplified their ESG story, supported local resilience, and extended the life of high-quality equipment that still had 10–15 years of usable output.

Takeaway

End-of-life doesn't have to mean end-of-use.

With the right partners and planning, what looks like waste may actually be renewable opportunity.

Let's keep solar panels working – and keep them out of landfills.





“We have a moral **responsibility** to protect the earth and ensure that our children and grandchildren have a healthy and sustainable environment in which to live.”

– **Jim Clyburn**

Recycle & Reuse Solar Panels Join the Commitment

What else can you do?

Ending the solar waste crisis starts with small, intentional actions. Here's how you can lead the way:

Stay Informed

Join the conversation, share knowledge, and help raise awareness about the importance of keeping solar panels out of landfills.

Support Smart Policy

Advocate for legislation that promotes solar recycling, extended producer responsibility, and circular economy solutions.

Choose Recycling Over Landfill

Make responsible disposal part of your company's DNA. Every panel recycled is a step toward a cleaner future.

Plan Ahead

Create an End-of-Life Plan (EOLP) for your projects. Budget for recycling in advance — not as an afterthought, but as part of your sustainability strategy.

The solar industry was built on innovation and purpose. Let's carry that same energy into how we handle what comes next.

Together, we can power a circular future.





“Think globally, act locally”

Patrick Geddes

FabTech Solar Solutions provides both refurbishing and recycling solutions. Refurbishing options offset recycling/freight costs and give others who normally couldn't afford brand new solar panels-the opportunity to buy used. With refurbishing facilities in Arizona and recycling partnerships nationwide, they continue to make it more accessible to all. They have a strict no-landfill policy.

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Dr. Janette Freeman, VP Business Development – sometimes called, *“The solar panel recycling evangelist,”* is passionate about saving the landfill from the millions of solar panels which will be coming to end-of-life in the years ahead. Reach out for a quote.