

ERI®

People. Planet. Privacy.™

MassDEP Recycling Market Development Workgroup

May 19, 2026



COMPANY OVERVIEW

Our Company

- Founded in 2002 & Headquartered in Fresno, CA
- 725 employees
- 25 AI Robots
- Zero Waste
- Largest Material Resource Recovery, ITAD, Mobility and Data Destruction/Processing provider in the U.S.
- Eight U.S. Facilities servicing every ZIP code in the U.S. with fully integrated global reach/partner network
- Fully integrated end-to-end solution providing in-house data destruction, processing, remarketing, recycling, logistics, and electronics legislative compliance services
- Most collapsed and direct downstream footprint in the industry with direct-to-smelter relationships
- Innovative and proprietary robotics and artificial intelligence (AI) equipment, technology and software
- Top U.S. market share and brand leader
- Over 2.5 billion pounds recycled and remarketed (approximately 200 million pounds annually)
- Clients across all major industries and all levels of government

Headquartered in Fresno, CA, USA

Servicing every ZIP code in the U.S. with global reach / partner network

Eight (8) U.S. Processing Facilities
Fresno, CA • Kent, WA • Flower Mound, TX • Goodyear, AZ
Plainfield, IN • Holliston, MA • Lincoln Park, NJ • Norcross, GA

Global partner network covering over 130 countries.

© 2026 ERI – Proprietary and Confidential. All Rights Reserved.

Highest Environmental & Data Security Certifications

The World's First Carbon Neutral Material Resource Recovery, IT Asset Disposition (ITAD), Mobility & Data Destruction/Processing Company. First and currently the only company in the world certified to e-Stewards, R2v3, NAID AAA, ISO 27001, ISO 14001, ISO 45001, ISO 9001, and SOC 2 Type II & SOC 3 certifications at all locations.

Provides a framework for recycling management systems, addressing environmental, worker health and safety, and information security issues that are directly related to the recycling of electronics equipment.

- The e-Stewards Initiative is an electronics waste recycling standard created by the Basel Action Network.
- Ensures companies adhere to the most stringent environmentally and socially responsible practices when recovering hazardous electronic materials

- NAID AAA Certification is a voluntary program for companies that provide information destruction services.
- Helps businesses verify that a potential shredding and destruction vendor meets the strict information disposal standards established by the NAID(1).

SOC 2 Type II and SOC 3 is a security framework that specifies how organizations should protect customer data from unauthorized access, security incidents, and other vulnerabilities. The American Institute of Certified Public Accountants (AICPA) developed SOC 2 around five Trust Services Criteria: security, availability, processing integrity, confidentiality, and privacy.

ISO 14001

International standard for environmental management systems ("EMS") and the most widely used EMS in the world.

ISO 45001

The international standard for health and safety at work.

ISO 9001

Sets out criteria for a quality management systems, including principles of strong customer focus, the motivation and implication of top management, the process approach and continual improvement.

ISO 27001 is the leading international standard for information security management systems. It helps organizations protect their information in a systematic and cost-effective way and can be certified by the ISO. (New)

Note: (1) National Association of Information Destruction
Sources: ISO, BAN, NAID, R2

© 2026 ERI – Proprietary and Confidential. All Rights Reserved.

Summary of Services

Core Services



Material Resource Recovery (Recycling),
ITAD, Mobility & Data Destruction/Processing



Battery Recycling



PV / Solar Panel Management



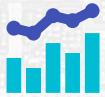
OEM Electronics Legislative Compliance

- Extended Producer Responsibility (EPR)
- Advanced Recycling Fee (ARF)

Enhanced Services



Data Center Services



Customized Reporting / API Systems Integration



Hardware Redeployment / Lease Return Services



Customized Logistics & White Glove Service

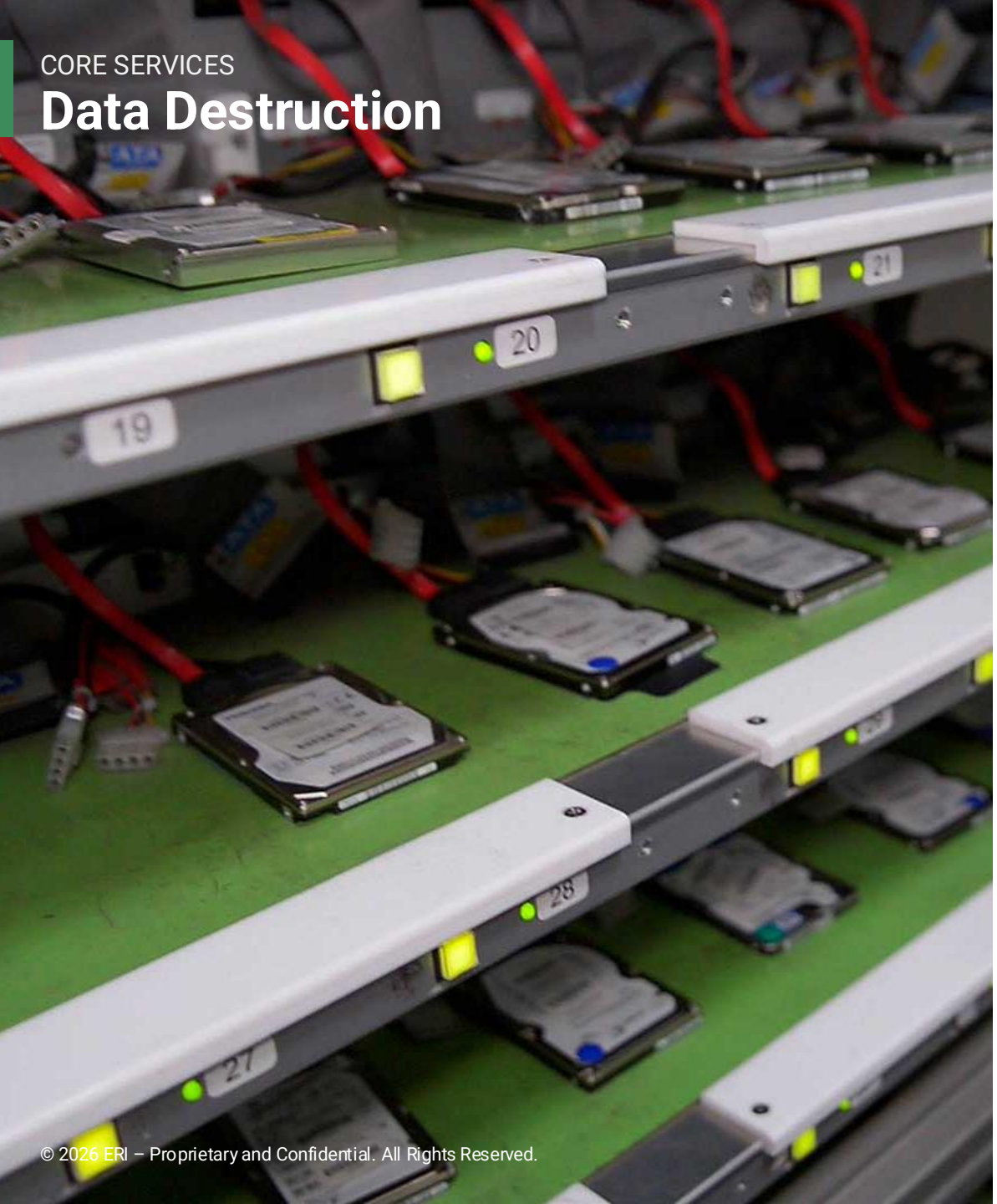


Employee Programs & Special Events



Mail Back Recycling Kits

© 2026 ERI – Proprietary and Confidential. All Rights Reserved.



CORE SERVICES

Data Destruction

Being a NAID AAA Certified company ensures operational data security and compliance procedures are documented and followed

All data destroyed in accordance with NIST SP 800-53 security controls and NIST SP 800-88 Guidelines for Media Sanitization

Destruction of all types of data bearing devices including printers, projection equipment, and all forms of electronic media storage

On-site destruction available for drives, magnetic tape, and mobile devices

Four levels of data destruction services, including witnessed destruction through video feeds or in-person for high security data destruction services and de-mil destruction services

© 2026 ERI – Proprietary and Confidential. All Rights Reserved.

CORE SERVICES

Remarketing & Enhanced ITAD and Mobility Services

Solutions

- Remarketing expertise across diverse hardware technologies and OEM's ensuring competitive revenue return for all asset types including:
    - Core workplace IT equipment
    - Mobile devices
    - Data Center Infrastructure
    - Consumer electronic devices
    - Specialized electronics such as POS devices, audio-visual, and electronic medical equipment
- Asset management tracking transparency including device serialization, diagnostics testing, grading, valuation, and remarketing
- In-house, multi-channel resale servicing via dedicated team
- Parts harvest when value of the parts exceed the value of the whole unit
- One time asset bid-buy solutions
- Lease return services, custom redeployment offerings, charitable donations



© 2026 ERI – Proprietary and Confidential. All Rights Reserved.

CORE SERVICES

Transparent Circular Material Resource Recovery (Electronics Recycling)




Precious Metals – High Grade


Precious Metals – Fines


Precious Metals – Low Grade


Copper


Plastic


Aluminum


Steel


TV & Monitor Boards

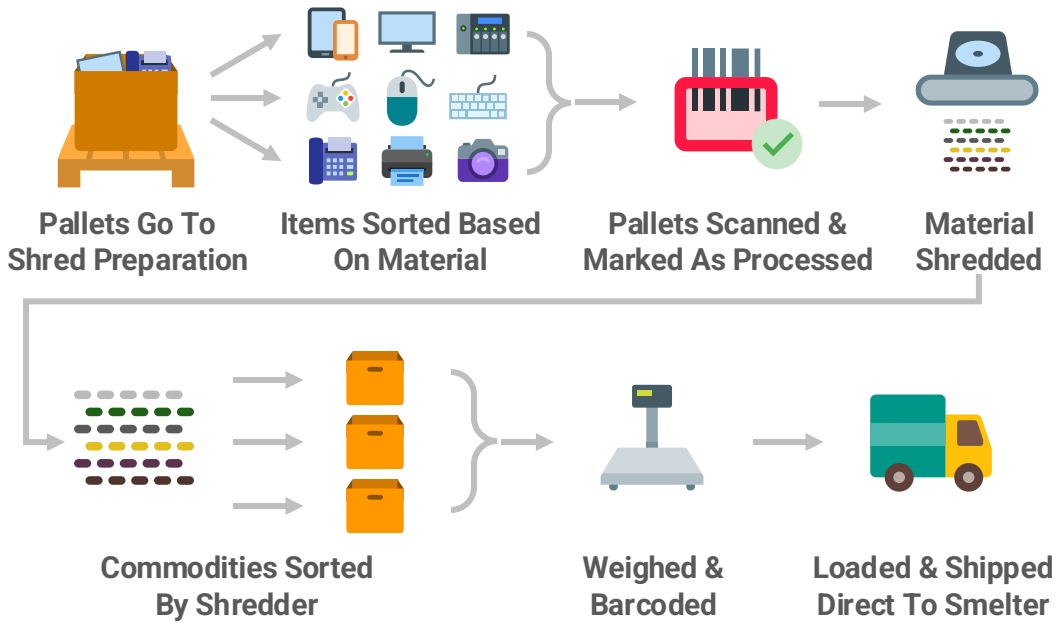

Brass


Copper Motors


Transformers


Stainless Steel

- Largest electronics shredding capacity in the world
- ERI's fully integrated solutions allows for transparent circular material resource recovery
- ERI recovers domestic sources of critical materials* including copper and aluminum for full circularity and transparency
- Focus materials, including batteries, are responsibly handled and processed for full circular material resource recovery
- All material resources are only sent to approved audited vendors and vetted through ERI's Downstream Vendor Management Program



© 2026 ERI – Proprietary and Confidential. All Rights Reserved.

* Critical Materials as defined by the US Energy Act of 2020

CORE SERVICES

PV / Solar Panel Management

ERI is positioned to be one of the largest photovoltaic (PV) / solar panel processors in the nation with the ability to process the following PV/Solar Equipment:

- PV Modules
  - Monocrystalline
  - Polycrystalline
- Inverters or micro-inverters
- Racking equipment or trackers
- Energy storage systems

ERI offers a complete turnkey solution for solar panel recycling.

Decommissioning
Our experienced team creates a strategic logistics solution to properly and safely uninstall the units and load them for transport

Logistics
ERI will provide complete pickup service for these units to be transported back to the closest ERI facility

Recycling
Fully integrated solution process allows for processing to the commodity level

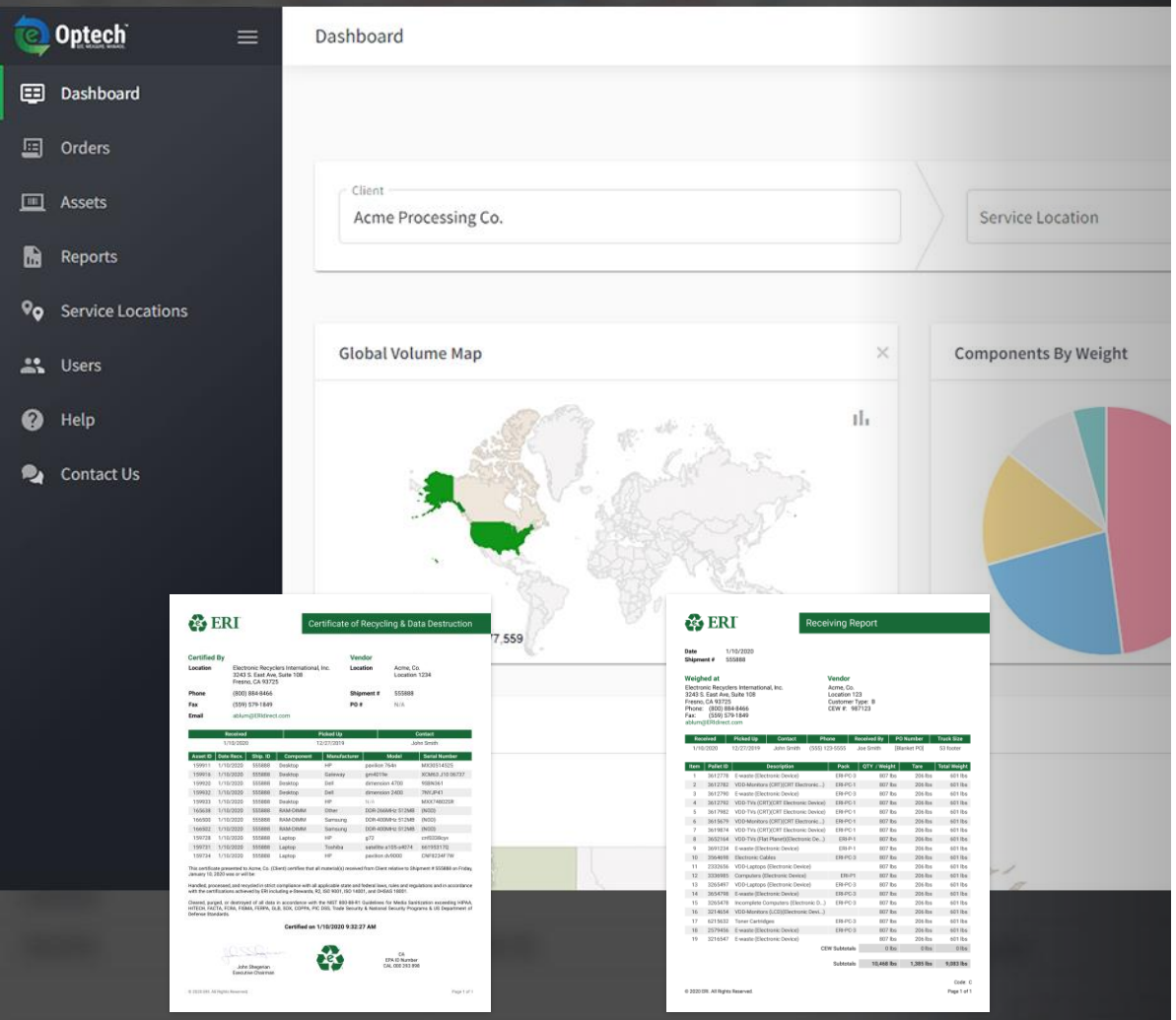
Circular Solutions
Including registration, serialization, testing, valuation and remarketing



© 2026 ERI – Proprietary and Confidential. All Rights Reserved.

CORE SERVICES – OPTECH™

Proprietary Reporting & Tracking Software

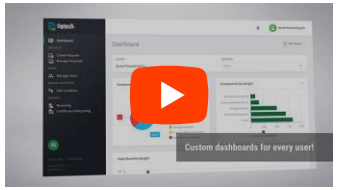


Certificate of Recycling & Data Destruction

Fully Itemized Receiving Reports to transparently track every item that comes into ERI

Optech™ features our proprietary state-of-the-art software platform that has been built entirely from scratch to ensure the best possible performance and flexibility.

Features	Optech
View All Account Activity	✓
Manage Channel Partners	✓
Manage User Accounts	✓
Customizable Dashboard Per User	✓
Order Multiple Service Levels	✓
High Speed Reporting	✓
APIs & Integration With Any Third-Party Platform	✓



Watch Optech Overview
(eri.to/optech-overview)

© 2026 ERI – Proprietary and Confidential. All Rights Reserved.

ENHANCED SERVICES

Customized Reporting / API Systems Integration

Data Points Captured

These are the metrics captured by ERI through Optech, a proprietary software inventory management system, for the purpose of reporting, tracking and overseeing our process and our customers' materials through our process.

Clients

- Name
- Contacts
- Billing Information / Entities
- Terms
- Reporting Requirements
- OEM Obligations
- Approved Materials
- Work Order Requirements

Locations

- Address
- Point of Contact
- Default ERI Delivery Location
- Client Link

Shipments/ADRs

- Dates:
  - Scheduled, Pick-Up
  - Delivered, Process Start
  - Unloaded, Reviewed
- Location Link
- Order Status
- Freight Carrier
  - Driver Name
  - Trailer Number
- Receiving Coordinator
  - Name/Login
- Asset List

Pallets

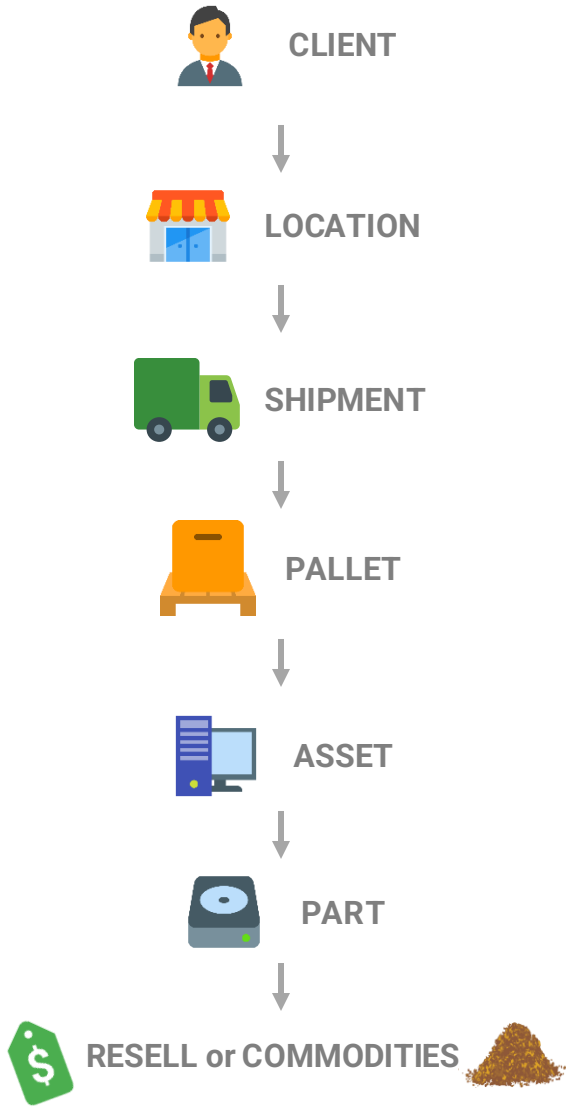
- Barcoded
- Component / Material Type
- Weight / Count
- Tare Weight / Packaging Type
- Customer Container ID
- Created Date & User
- Process Date & User
- Shipment Link

Assets

- Barcoded
- Make, Model, Serial
- Customer Asset Tag
- Created Date & User
- Testing Details
- Disposition Details
- Pallet Link
- Erasure Details

Parts

- Barcoded
- Parent Asset Link
- Make, Model, Serial
- Created Date & User
- Testing Details
- Disposition Details

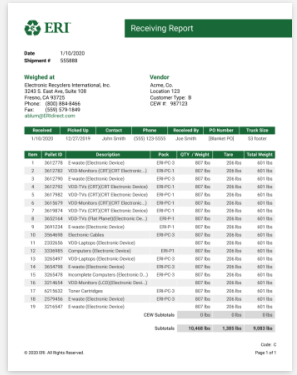


Key Customers & Reporting

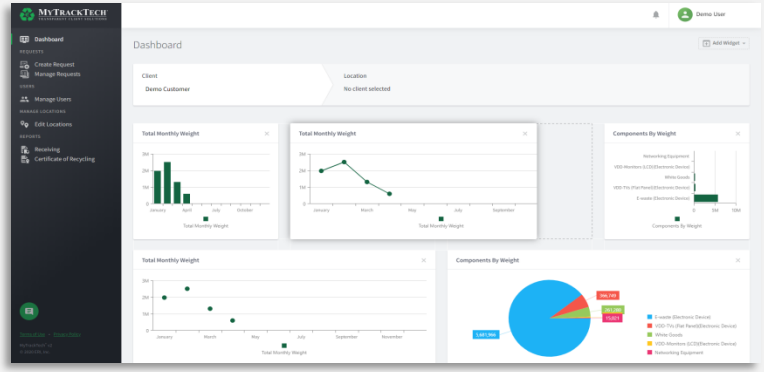
All metrics and data captured can also be accessed and made available to our customers through any number of fully customizable options.

API EDI servicenow

Integrations





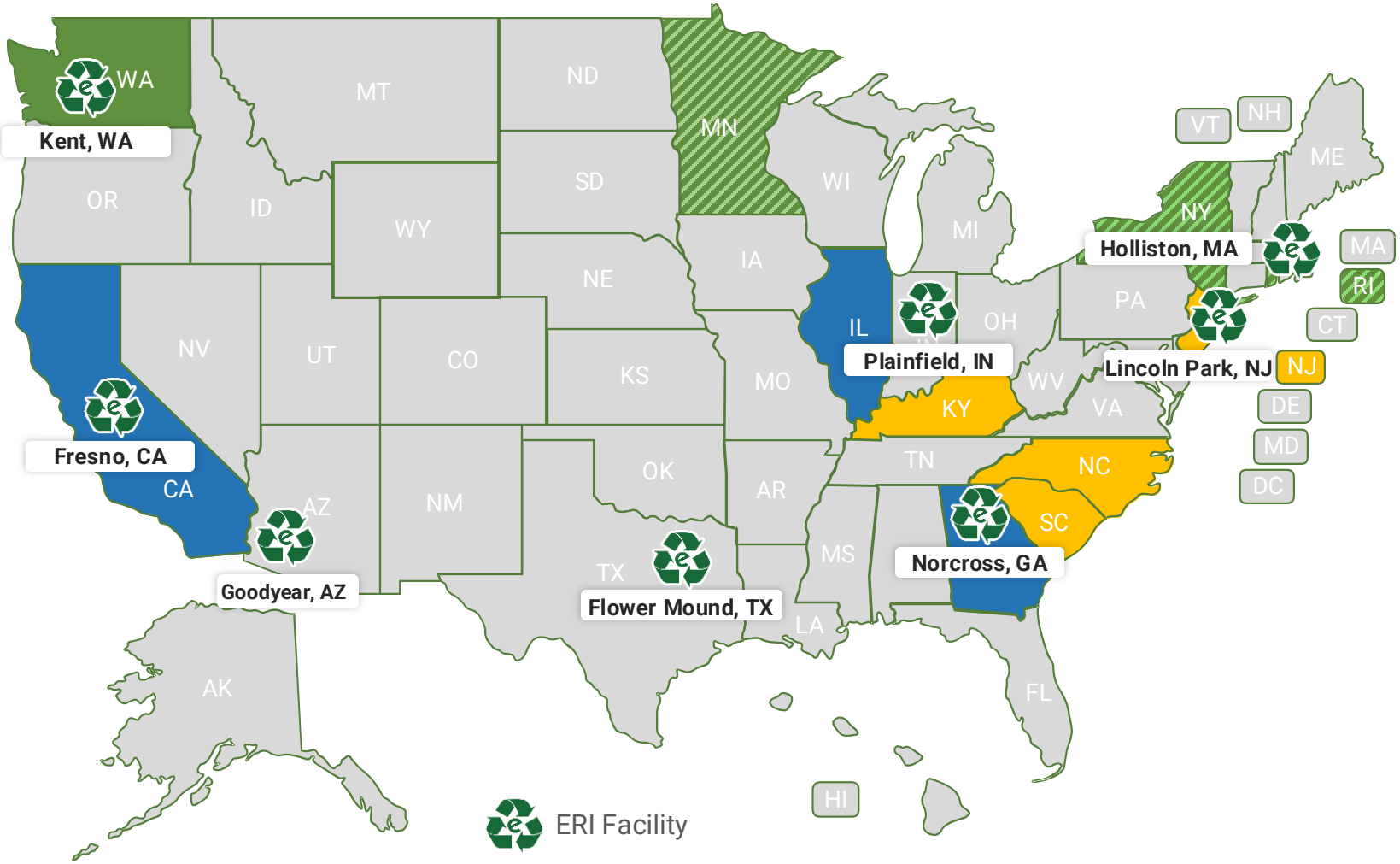


© 2026 ERI – Proprietary and Confidential. All Rights Reserved.

LEGISLATIVE COMPLIANCE

Solar Panel Recycling Laws

4 U.S. States have legislation impacting the recycling of solar panels.



Extended Producer Responsibility Law

- WA
- NY (Proposed), RI (Proposed) , MN (Proposed)

Disposal Regulations

- CA (defines solar panels as Universal Waste)
  GA (Proposed), IL (Proposed)

Study Bills

- NC, NJ, SC, KY

As of July 2025

© 2026 ERI – Proprietary and Confidential. All Rights Reserved.

ERI®

People. Planet. Privacy.™

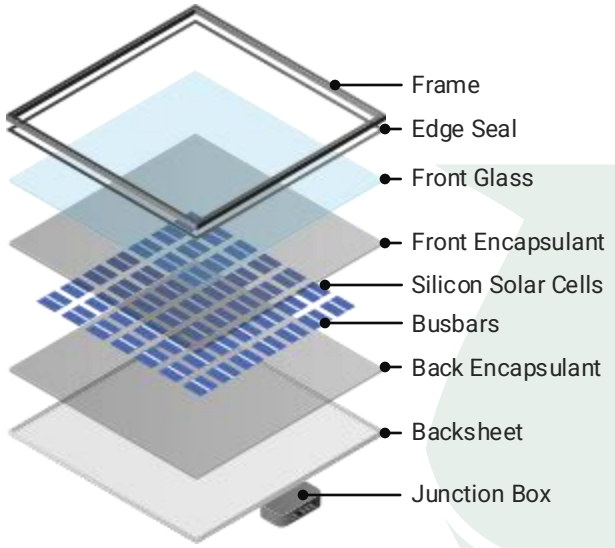
Solar Panel
Material Composition and Waste Projection



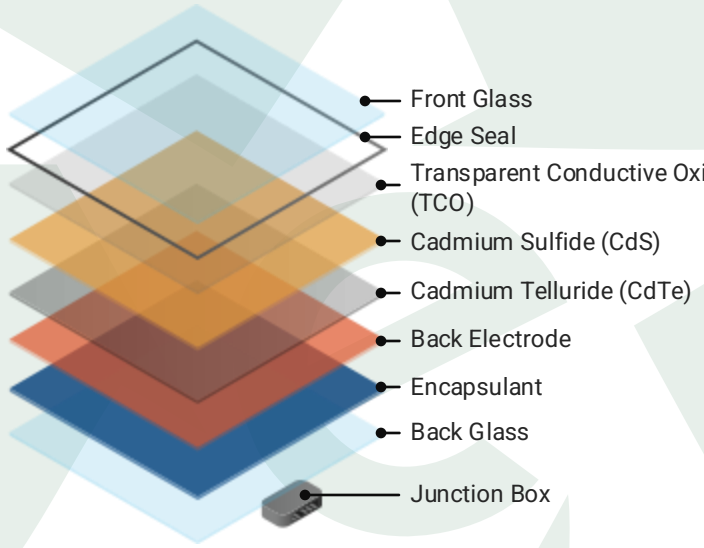
PV Module Type

Technology	Crystalline silicon (c-Si)		Thin film
Type	Monocrystalline	Polycrystalline	Copper indium gallium selenide (CIGS) and Cadmium telluride (CdTe)
Appearance	Single blue color Single crystal of silicon	Multiple blue color Multiple crystals of silicon with different angles	Solid black thin layer of photovoltaic substance
Efficiency	17% to 22%	15% to 17%	10% to 13%
Common Application	Residential rooftop		Large scale solar farm
Global Production	73.3%		10.4%

Crystalline silicon (c-Si) Module



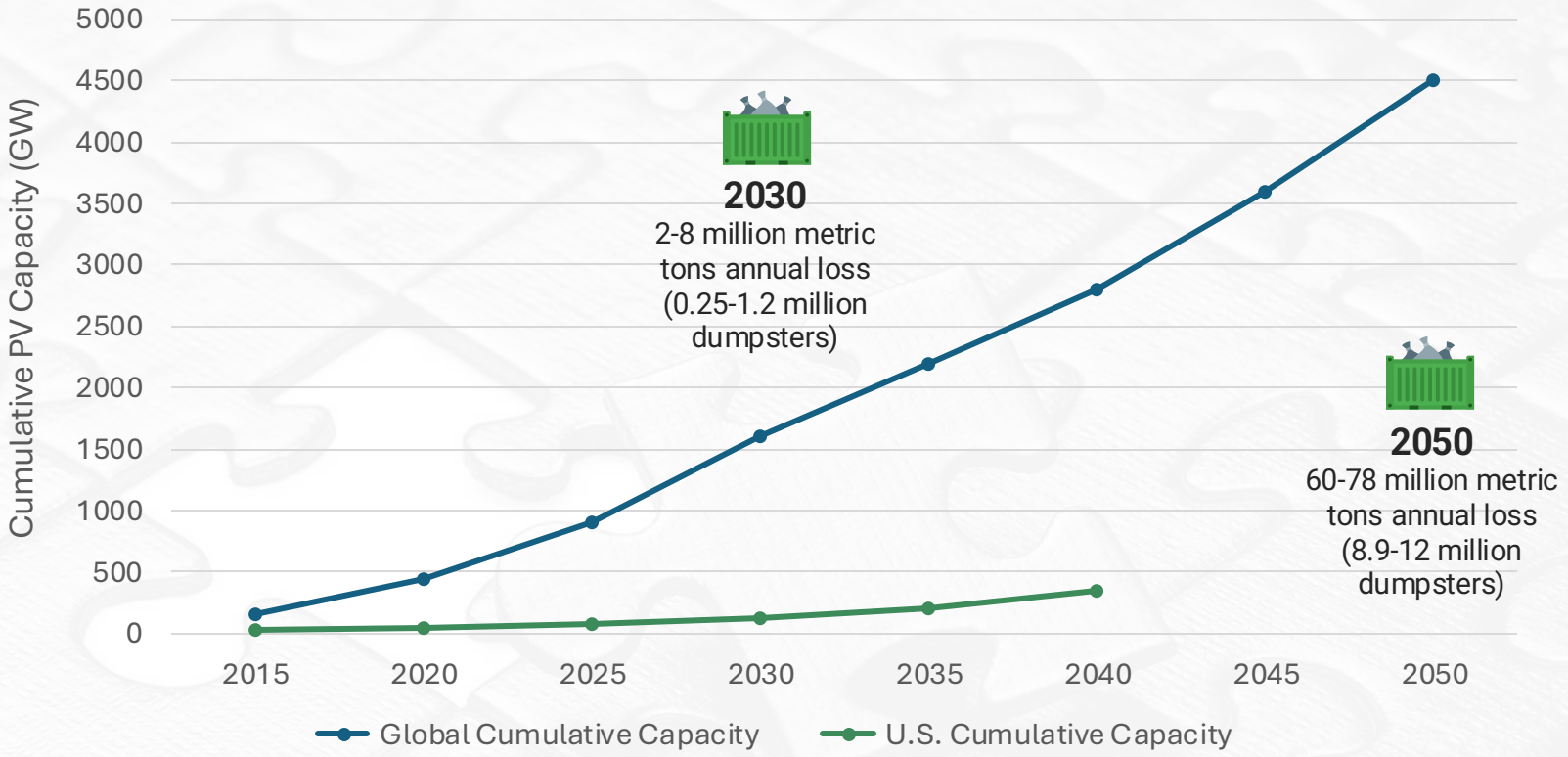
Thin film Module



© 2022 ERI – Proprietary and Confidential. All Rights Reserved.

Market Growth: PV Modules

- Solar Panels (PV modules) installation has been growing rapidly in the U.S. and the world.
- In California alone, it currently has 31,288.02 megawatts powering the State, which roughly equals to 92 million pieces of solar panels, and they'll eventually become obsolete when it reaches its end-of-life.
- National Laboratory of the Rockies (Formerly NREL) expects the U.S. will be the top benefactor when PV reaches EOL, anticipated EOL PV would generate $60 million in raw material recovery in 2030; By the year 2050, profit for U.S. operators could reach $2 billion.



Cumulative global and U.S. installed PV capacity and global waste projections: In the U.S. market, 170,000 to 1 million metric tons of spent PV modules are expected by 2030, or 25,000 to 150,000 dumpsters (40 cubic yards each). Those numbers are expected to grow roughly 10-fold by 2050.

IRENA and IEA-PVPS (2016), "End-of-Life Management: Solar Photovoltaic Panels," International Renewable Energy Agency and International Energy Agency Photovoltaic Power Systems. Redrawn by EPRI

© 2026 ERI – Proprietary and Confidential. All Rights Reserved.

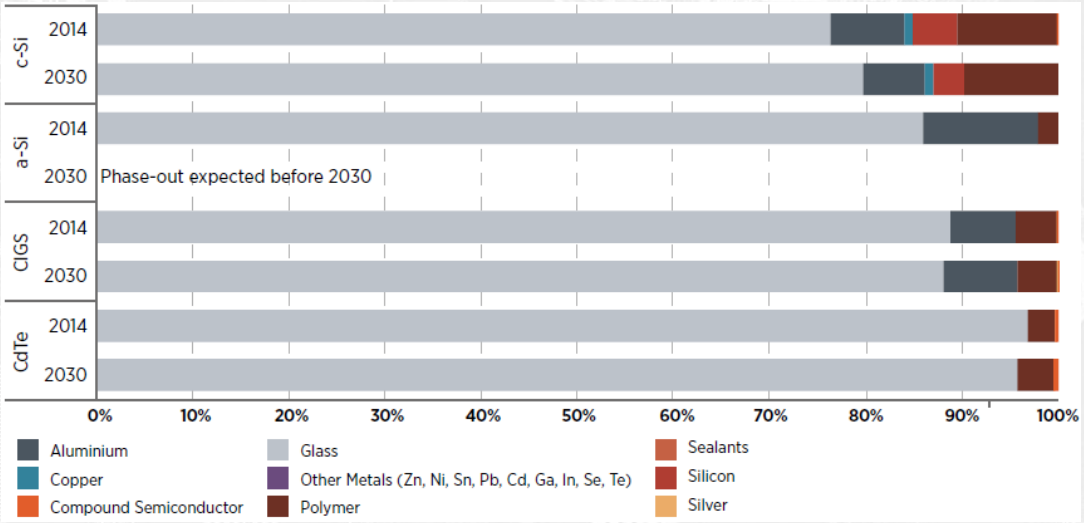
Processing Technology

PV Module Composition

Glass	Aluminum	Copper	Silicon	Polymer	Other Metals
76-95%	8-12%	1%	2-5%	3-11%	< 0.1%

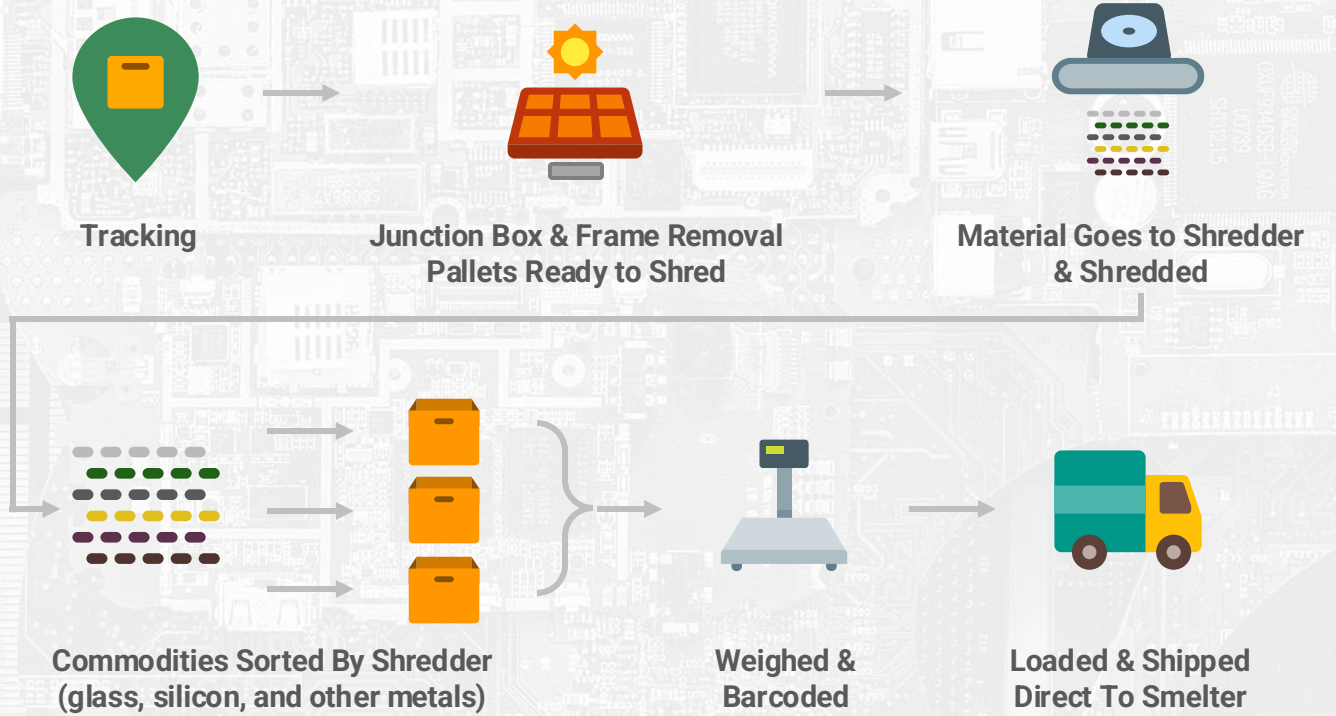


Materials Used for Different PV Panel Technologies



Evolution to 2030 of materials used for different PV panel technologies as a percentage of total panel mass.

Based on Marini et al., (2014); Pearce (2014); Raithel (2014); Bekkelund (2013); NREL (2011) and Sander et al., (2007)



© 2026 ERI – Proprietary and Confidential. All Rights Reserved.

ERI®

People. Planet. Privacy.™

PV Services



White Glove Services

ERI is committed to providing a complete solution for our customer's retired solar panels. Our customers have the option of a complete hands-free White Glove service for loose unpalletized solar panels. This service includes:

- **Packaging materials**
- **A team that will palletize and shrinking wrap all of the solar panel units**
- **Loading onto the truck**
- **Transportation back to the closest ERI facility**







© 2022 ERI – Proprietary and Confidential. All Rights Reserved.

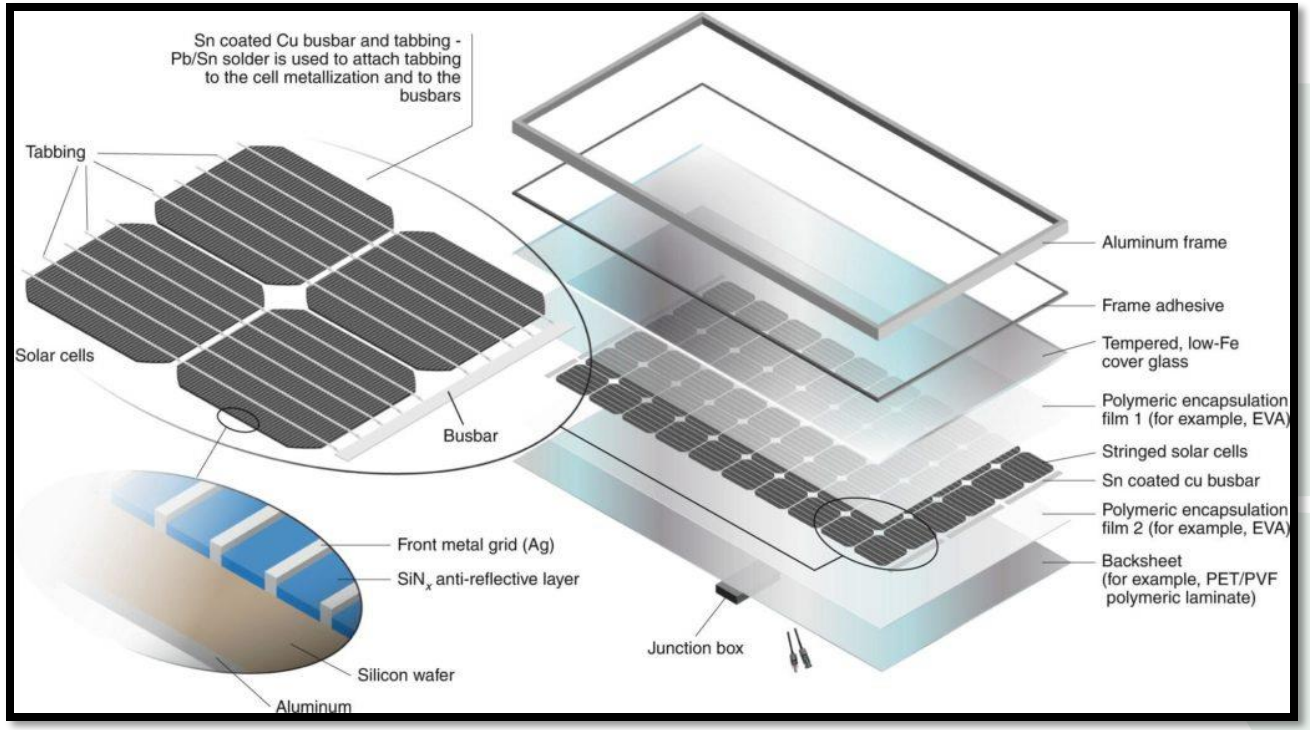
Recycling

ERI is able to safely recycle the following PV equipment:

- PV modules (mono or polycrystalline, thin-film, etc.)
- Inverters or microinverters
- Racking equipment or trackers

Recycling a solar panel can be broken down into three basic steps:

1. Remove the frame and junction box
2. Separate the glass from the silicon wafer
3. Separate and purify the silicon and various metals



© 2022 ERI – Proprietary and Confidential. All Rights Reserved.

Registration and Remarketing

Access full reporting capabilities for your solar panel assets, as ERI can register each unit. This information is displayed on Certificates of Recycling & Data Destruction.

ERI also has the capabilities to test and re-sell solar panels above the tech cutline.





ERI People. Planet. Privacy.

Certificate of Recycling & Data Destruction

Certified By		Customer	
ERI			
Address:	3243 S. East Ave, Suite 108 Fresno, CA 93725	Address:	
Phone:	(800) 374-3473	Location:	
Email:	AR@ERIdirect.com		

Details		
Order:	Customer:	Date Picked Up: 7/13/2021
Shipment:	Customer PO:	Date Received: 7/31/2021
Reference:		

Description	QTY/Weight	Tare	Total Weight
E-waste (Electronic Device)	422 lbs	0 lbs	422 lbs
Solar Panels	3,191 lbs	111 lbs	3,080 lbs
Subtotals	3,613 lbs	111 lbs	3,502 lbs

Asset ID	Asset Tag	Type	Manufacturer	Model	Serial
		Solar Panels - Roof Top Industrial	LG	LG 265S1 C-83	K2113A184420
		Solar Panels - Roof Top Industrial	LG	LG 265S1 C-83	K2113A282478
		Solar Panels - Roof Top Industrial	LG	LG 265S1 C-83	K2113A1884424
		Solar Panels - Roof Top Industrial	LG	LG 265S1 C-83	K2113A184422
		Solar Panels - Roof Top Industrial	LG	LG 265S1 C-83	K2113A184413
		Solar Panels - Roof Top Industrial	LG	LG 265S1 C-83	K2113A283429
		Solar Panels - Roof Top Industrial	LG	LG 265S1 C-83	K2113A184346
		Solar Panels - Roof Top Industrial	LG	LG 265S1 C-83	K2113A184440
		Solar Panels - Roof Top Industrial	LG	LG 265S1 C-83	K2113A191247
		Solar Panels - Roof Top Industrial	LG	LG 265S1 C-83	K2113A14441
		Solar Panels - Roof Top Industrial	LG	LG 265S1 C-83	K2113A184418

© 2021 ERI. All Rights Reserved.

Page 17 of 20

© 2022 ERI – Proprietary and Confidential. All Rights Reserved.

Contact Information



David Hirschler
Chief Sustainability Officer
+1 (617) 817-0477
David.hirschler@ERIdirect.com

Corporate Headquarters

7815 North Palm Avenue, Suite #140
Fresno, California, USA 93711

1-800-ERI-DIRECT (374-3473)

www.ERIdirect.com

info@ERIdirect.com

© 2026 ERI – Proprietary and Confidential. All Rights Reserved.