

A NEW DAWN FOR CIRCULAR SOLAR ECONOMIES

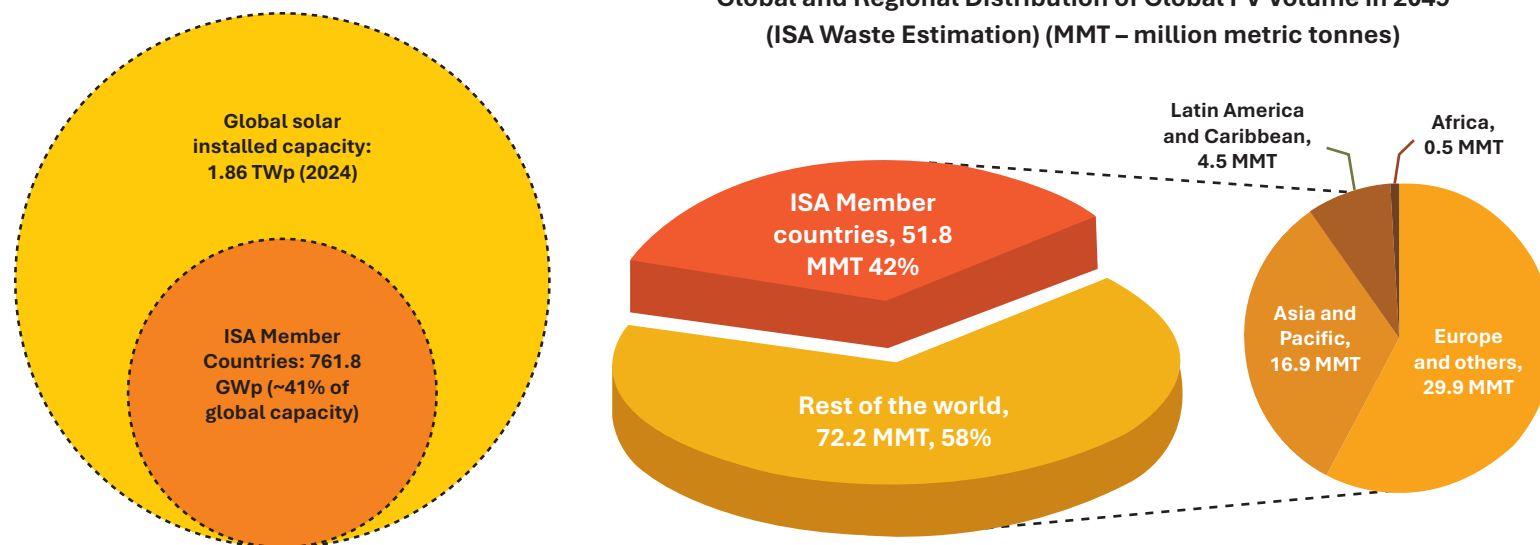
The International Solar Alliance (ISA) has launched SUNRISE, a global platform to turn solar waste into worth — unlocking new opportunities for green industry, jobs, and resource security across the Global South. At COP 30, ISA invites partners to join the SUNRISE Community of Practice — a growing coalition advancing circularity in solar PV and battery value chains.

Why SUNRISE? Why Now?

Because the world's clean energy future must also be circular. SUNRISE offers governments, innovators, and investors a unique platform to shape the next phase of the solar revolution — where sustainability, industry, and impact meet. Together, we can turn solar waste into a USD 15 billion annual opportunity for green growth across the Global South.

The world has installed over 1.86 TW of solar capacity — a clean energy revolution led by ISA's 125 Member Countries, which together account for 41% of global capacity. As these systems reach end-of-life, the world faces a new challenge: solar waste. By 2049, PV waste is projected to exceed 124 million tonnes, with more than 50 million tonnes arising in ISA Member Countries.

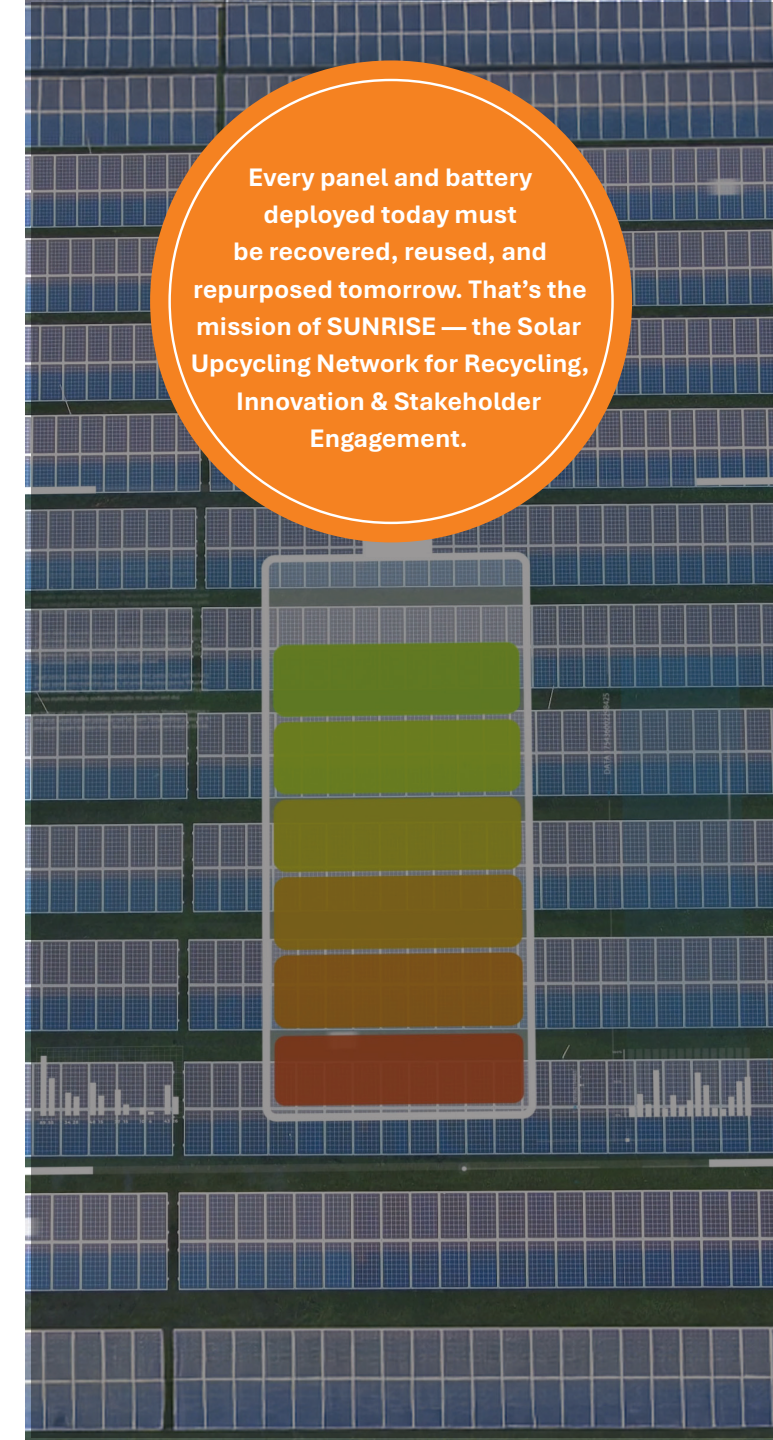
Global and Regional Distribution of Global PV Volume in 2049
(ISA Waste Estimation) (MMT – million metric tonnes)



Every panel and battery deployed today must be recovered, reused, and repurposed tomorrow. That's the mission of SUNRISE — the Solar Upcycling Network for Recycling, Innovation & Stakeholder Engagement.

Yet this challenge is also an opportunity with ISA's next frontier - Circularity. SUNRISE transforms this challenge into opportunity — building circular solar economies that are renewable, recoverable, and regenerative

Economic Opportunity	Recoverable value of PV materials could exceed USD 15 billion annually by 2050	7 AFFORDABLE AND CLEAN ENERGY
Resource Security	Circularity reduces dependence on imported critical minerals, a key barrier for energy security in the Global South	9 INDUSTRY INNOVATION AND INFRASTRUCTURE
Environmental Integrity	Responsible waste management prevents leakage of hazardous materials (e.g., lead, cadmium) into ecosystems	11 SUSTAINABLE CITIES AND COMMUNITIES
Sustainable Jobs	New recycling industries will generate thousands of skilled jobs in materials recovery, manufacturing, and logistics	12 RESPONSIBLE CONSUMPTION AND PRODUCTION



JOIN THE SUNRISE COMMUNITY OF PRACTICE

Be Part of a Global Partnership Ecosystem

Members of CoP-SUNRISE will:

ISA is engaging with:

01

Co-create frameworks for policy, finance, and technology innovation

02

Access knowledge-sharing and capacity-building programmes

03

Engage directly with ISA Member Countries and industry leaders

04

Shape the global dialogue on solar circularity at ISA and COP platforms



RESEARCH &
ACADEMIA



MULTILATERAL
PARTNERS



PRIVATE
SECTOR



INDUSTRY
ASSOCIATIONS

Together, we aim to establish regional recycling hubs, innovation labs, and financing platforms to operationalize circular solar value chains.

OUR GOAL:

Build a network of **200+ CoP members** by 2028, including governments, private sector, academia, and international organizations

Join the SUNRISE Platform.

Be a founding partner in shaping circular solar economies.

Enabling solar for all — affordable, reliable, and sustainable



Through **SUNRISE**, ISA is pioneering a new paradigm — where solar panels and batteries live many lives, materials never go to waste, and circular innovation powers a cleaner, fairer world.

Ashish Khanna
Director General, ISA

OUR OFFERINGS

- ✓ Copper for Solar – Building Sustainable and Resilient Value Chains in the Region
- ✓ Battery Recycling Guidelines
- ✓ Global Waste Outlook 1.0
- ✓ Best Practices Repository
- ✓ End-of-Life Round tables
- ✓ Community of Practice Consultations
- ✓ Annual Circularity Conference
- ✓ Webinar series 2.0 “Solar PV Waste Management: Building a Circular Solar Economy”

CONTACT US

Dr. Gurleen Kaur

Program Lead – Solar PV and Battery Waste Management

International Solar Alliance

Surya Bhawan

National Institute of Solar Energy Campus Gwal Pahari,
Faridabad-Gurugram Road, Gurugram, Haryana – 122003, India

Email: gkaur@isa.int | info@isa.int



@isolaralliance



internationalsolaralliance



internationalsolaralliance



internationalsolaralliance