

Sustainable Management of Solar PV Panel Waste

A Circular Approach to Solar PV Waste

Authors:

Virendar Kumar, Madan Mohan Malviya Technical University,
Kanpur, India

Nishant Kumar Singh, Harcourt Butler Technical University, Kanpur,
India

Dan Bhadur Pal, Harcourt Butler Technical University, Kanpur, India

Surendra Kumar Yadav, K R Mangalam University in Gurugram,
India

The solar boom sweeping the world holds both promise and peril. Although solar PV panels provide a revolution in energy production, it is their end-of-life that poses a serious challenge. This book, Sustainable Management of Solar PV Panel Waste, addresses several aspects of this concern. It assesses the environmental degradation over the entire lifecycle of solar panels, from manufacturing to disposal. Readers will encounter new waste management approaches, explore key policy frameworks, and learn about urban technologies capable of resource recovery. This book should be mandatory reading for researchers, policy-makers and industry professionals who want to reduce the environmental impacts of solar energy and create a truly sustainable solar future.

TABLE OF CONTENTS

Chapter 1 Introduction

Chapter 2 Solar PV Panel Waste Projections

Chapter 3 PV Panel Composition and Waste Classification

Chapter 4 PV Panel Waste Management Options

Chapter 5 National Approaches to PV Waste Management

Chapter 6 Value Creation from End-of-life PV Panels

Chapter 7 Conclusions: The Way Forward

River Rapids

Sustainable Management of Solar PV Panel Waste

A Circular Approach to Solar PV Waste

Virendar Kumar Nishant Kumar Singh Dan Bhadur Pal Surendra Kumar Yadav



River Publishers

River Publishers Series in Energy Sustainability and Efficiency

ISBN: 9788743800859

e-ISBN: 9788743800842

Available From: August 2025

Price: \$ 75.00

KEYWORDS:

Solar PV waste; solar panel recycling; circular economy for solar; sustainable energy; environmental impact; policy frameworks



www.riverpublishers.com
marketing@riverpublishers.com