

PVRW 2026

Photovoltaics Reliability Workshop

February 24–26, 2026
Lakewood, Colorado

Program committee:

Michael Deceglie (chair)	Joe Karas	Dennice Roberts
Jenn Braid	Cherif Kedir	Janna Segrest
Kris Davis	Jenya Meydbray	Adam Shinn
Nick de Vries	Colleen O'Brien	Tim Silverman
Tristan Erion-Lorico	Gernot Oreski	Colin Sillerud
Henry Hieslmair	Silvana Ovaitt	Allan Ward
Will Hobbs	Jon Previtali	

Tuesday, February 24, 2025

Morning

7:30 AM	Breakfast
8:20 AM	Opening remarks
8:30 AM	Extreme weather and resilience
8:30 AM	Hail: A data-driven understanding of PV module resilience
	Colin Sillerud
	<i>GroundWork</i>
8:50 AM	Predicting module damage from hail impacts using finite element simulations
	Steven DiGregorio
	<i>Sandia National Laboratories</i>
9:10 AM	Measuring solar PV resilience: At 6s and 7s, how to make solar PV a 10 in the face of storms
	James Elsworth
	<i>National Laboratory of the Rockies</i>
9:30 AM	Panel discussion
9:50 AM	Break
10:20 AM	Quality and reliability in module and system design
10:20 AM	Creepage, clearance and compliance in PV modules: Quality assurance lessons from domestic manufacturing
	Terry Jester
	<i>Kiwa PI Berlin</i>
10:40 AM	Accelerating structural and mechanical engineering practice: Urgent needs and a path forward
	Gerald Robinson
	<i>Lawrence Berkeley National Laboratory</i>
11:00 AM	Industry-informed analysis of PV module glass breakage: Insights and perspectives from stakeholder interviews
	Farid Samara
	<i>DNV</i>
11:20 AM	Warranty litigation—Lessons learned and best practices
	Todd Heffner
	<i>Smith, Gambrell & Russell LLP</i>
11:40 AM	Panel discussion
12:00 PM	Lunch

Tuesday, February 24, 2025

Afternoon

1:00 PM	Poster session
2:30 PM	Glass
2:30 PM	Predicting glass fracture in large-format photovoltaic modules Martin Springer <i>National Laboratory of the Rockies</i>
2:50 PM	From static loads to dynamic reliability in PV systems: Investigating module cracking Miguel Garcia <i>Nextpower</i>
3:10 PM	Site data collection for asset management Janna Segrest <i>Quanta Services</i>
3:30 PM	Panel discussion
3:50 PM	Break
4:10 PM	Discussion session: Insurance
Moderators	
Michael Perron, <i>FM Renewable Energy</i>	
Isaac McLean, <i>kWh Analytics</i>	
Panelists	
Heidi Aragon, <i>J.S. Held</i>	
Marc Giovannetti, <i>Lloyd Warwick</i>	
Roderick Rennison, <i>Rimkus</i>	
5:20 PM	Day 1 closing and poster awards
5:30 PM	Welcome reception

Wednesday, February 25, 2026

Morning

7:30 AM	Breakfast
8:30 AM	Cell reliability
8:30 AM	From corrosion to UV effects: Unveiling and mitigating degradation mechanisms in TOPCon solar cells and modules
	Bram Hoex
	<i>University of New South Wales</i>
8:50 AM	Post-PID metastability and recovery behavior in TOPCON modules
	Allan Ward
	<i>Heliene</i>
9:10 AM	PID observations in the field
	Hubert Seigneur
	<i>University of Central Florida</i>
9:30 AM	Panel discussion
9:50 AM	Break
10:20 AM	Quality and reliability in operation and asset management
10:20 AM	Large scale daylight photoluminescence imaging for quality assessment of utility scale solar farms
	Thorsten Trupke
	<i>Lab 360 Solar / University of New South Wales</i>
10:40 AM	Insights from field operations
	Greg Rossin
	<i>AES</i>
11:00 AM	Insights from the PV O&M Analytics Collaborative
	Marios Theristis
	<i>Sandia National Laboratories</i>
11:20 AM	Repowering, the other side of the reliability coin
	Silvana Ovaitt
	<i>National Laboratory of the Rockies</i>
11:40 AM	Panel discussion
12:00 AM	Lunch

Wednesday, February 25, 2026

Afternoon

1:00 PM	Poster session
2:30 PM	Quality and reliability in construction and procurement
2:30 PM	Strained connections—EBOS and trackers David Devir <i>VDE Americas</i>
2:50 PM	Field data review: Quality and reliability insights from >2,000 inspections covering >5 GW of U.S. PV assets David Penalva <i>HelioVolta</i>
3:10 PM	National Lab Center for Electrical Balance of System Reliability Laurie Burnham <i>Sandia National Laboratories</i>
3:30 PM	Resuscitating Icarus: Responding to PV plant performance testing challenges Adam Kankiewicz <i>Origis Energy</i>
3:50 PM	Panel discussion
4:10 PM	Break
4:30 PM	Discussion session: Building consensus on module reliability classification
4:30 PM	Introductory presentation Henry Hieslmair <i>DNV</i>
4:40 PM	Panel discussion Henry Hieslmair, DNV Colleen O'Brien, UL Nick de Vries, Silicon Ranch Tristan Erion-Lorico, Kiwa PVEL
5:20 PM	Day 2 closing, presentation of the PowerMark Early Career Prize, poster awards

Thursday, February 26, 2026

Morning

7:30 AM	Breakfast
8:30 AM	Fleet-level observations
8:30 AM	PV Fleet performance—2025 update Chris Deline <i>National Laboratory of the Rockies</i>
8:50 AM	Insights from performance and reliability benchmarking (SUPER) Danny Fregosi <i>Electric Power Research Institute (EPRI)</i>
9:10 AM	Ensuring quality and reliability: Insights from our reliability testing and inspections Max Koentopp <i>TÜV Rheinland International GmbH</i>
9:30 AM	Panel discussion
9:50 AM	Break
10:20 AM	Inverters
10:20 AM	Inverters as repairable systems Nathan Brunner <i>DNV</i>
10:40 AM	Environmental effects on inverters: An in-depth study of humidity Peter Hacke and Ramanathan Thiagarajan <i>National Laboratory of the Rockies</i>
11:00 AM	Extending component lifetime and improving inverter reliability Wayne Li <i>Electric Power Research Institute (EPRI)</i>
11:20 AM	Panel discussion
11:40 AM	Lunch

Thursday, February 26, 2026

Afternoon

1:00 PM	Poster session
2:30 PM	Thin films
2:30 PM	Stabilization and characterization of CdTe solar panels Dana Kern <i>National Laboratory of the Rockies</i>
2:50 PM	Light and elevated temperature testing of perovskites Michael Owen-Bellini <i>National Laboratory of the Rockies</i>
3:10 PM	Insights from long-term stability testing of numerous FACs perovskite solar cells Marko Topič <i>University of Ljubljana</i>
3:30 PM	Panel discussion
3:50 PM	Break
4:10 PM	Encapsulants
4:10 PM	Temperature dependence of PV encapsulant degradation for UV-ID studies Xavier Hanna <i>National Laboratory of the Rockies</i>
4:30 PM	Let's not R-EPE-at our mistakes Ellie Palmiotti <i>National Laboratory of the Rockies</i>
4:50 PM	NIR spectroscopy for evaluating cross linking Gernot Oreski <i>Polymer Competence Center Leoben</i>
5:10 PM	Panel discussion
5:30 PM	Workshop closing and poster awards