

# **PVRW** **2026** *Photovoltaics Reliability Workshop*

February 24–26, 2026  
Lakewood, Colorado

## Program committee:

Michael Deceglie (chair)  
Jenn Braid  
Kris Davis  
Nick de Vries  
Tristan Erion-Lorico  
Henry Hieslmair  
Will Hobbs

Joe Karas  
Cherif Kedir  
Jenya Meydbray  
Colleen O'Brien  
Gernot Oreski  
Silvana Ovatt  
Jon Previtali

Dennice Roberts  
Janna Segrest  
Adam Shinn  
Tim Silverman  
Colin Sillerud  
Allan Ward

Tuesday, February 24, 2025

Morning

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

**Tuesday, February 24, 2025****Afternoon**

<b>1:00 PM</b>	<b>Poster session</b>
<b>2:30 PM</b>	<b>Glass</b>
<b>2:30 PM</b>	<b>Predicting glass fracture in large-format photovoltaic modules</b> Martin Springer <i>National Laboratory of the Rockies</i>
<b>2:50 PM</b>	<b>From static loads to dynamic reliability in PV systems: Investigating module cracking</b> Miguel Garcia <i>Nextpower</i>
<b>3:10 PM</b>	<b>Site data collection for asset management</b> Janna Segrest <i>Quanta Services</i>
<b>3:30 PM</b>	<b>Panel discussion</b>
<b>3:50 PM</b>	<b>Break</b>
<b>4:10 PM</b>	<b>Discussion session: Insurance</b>
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>	
<b>5:20 PM</b>	<b>Day 1 closing and poster awards</b>
<b>5:30 PM</b>	<b>Welcome reception</b>

**Wednesday, February 25, 2026****Morning**

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

**Wednesday, February 25, 2026****Afternoon**

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

**Thursday, February 26, 2026****Morning**

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

Thursday, February 26, 2026

Afternoon

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