

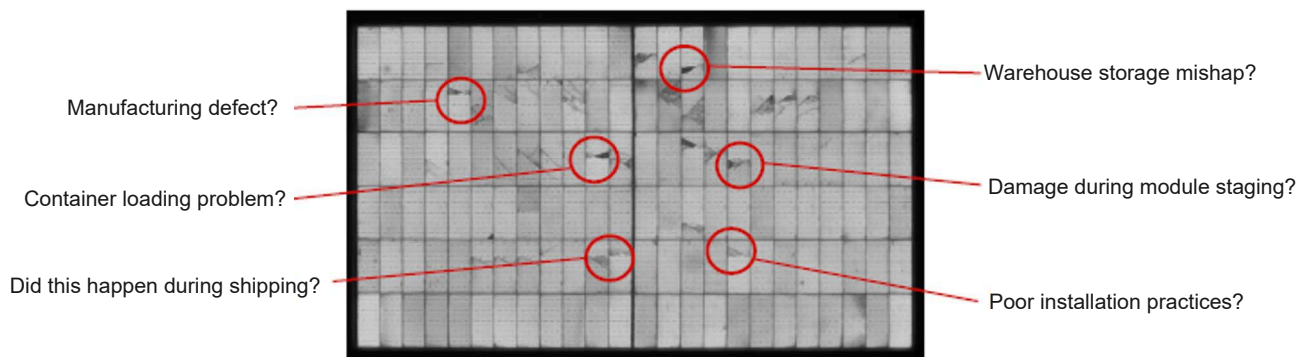
ELECTROLUMINESCENCE (EL) TESTING FOR PV MODULES



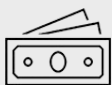
Identify and Eliminate PV Microcracks – The Invisible Performance Thief

The risk of damage to your PV modules does not end when they leave the factory. Modules can get damaged during transportation and installation, creating microcracks that are not visible to the naked eye.

If microcracks aren't caught early, it is usually impossible to know where they came from - making it more likely that you will end up on the hook.



Undetected Microcracks Have Unintended Business Consequences



As microcracks grow, underperformance gets increasingly worse.



The longer you wait to fix the issue, the more expensive it becomes.



Greater burden of proof for insurance and warranty claims.



Microcracks can make it harder to sell your solar project.

THE RIGHT PLAN: A Comprehensive Electroluminescence (EL) Testing Plan Reduces Your Risk of Underperformance



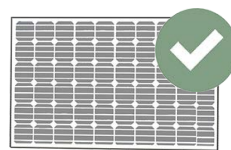
Non-disruptive Process

On installed modules, testing takes place at night so that production is not disrupted.



Efficient Sampling Strategy

Intelligently planned sampling procedures ensure we're testing just enough modules to give you the information you need.



Robust Quality & Analysis of Images

CEA takes high-res images at investor- and insurance-grade level, identifies module defects, and tells you what they mean.

THE RIGHT PEOPLE: CEA's Expertise Uniquely Protects Your Investment



Extensive EL Image Testing & Assessment Experience



Deep Product & Technology Knowledge

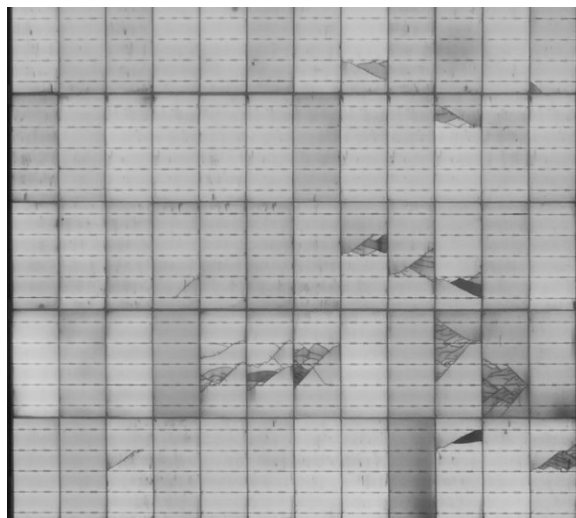


Relevant Warranty & Insurance Claim Experience

Case Study

Developer spent \$150M on a solar project with undetected microcracks, which grew and worsened over time. CEA was later hired to conduct EL inspections, and found microcracks on 20% of the modules. The developer could only sell the project for \$70M (less than half of the cost) based on the damage to the panels.

Had damage been detected originally, the developer could have held the installer liable. Instead, the developer waited too long and was saddled with the huge loss.



Proactive planning with trusted experts at an affordable cost.



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