



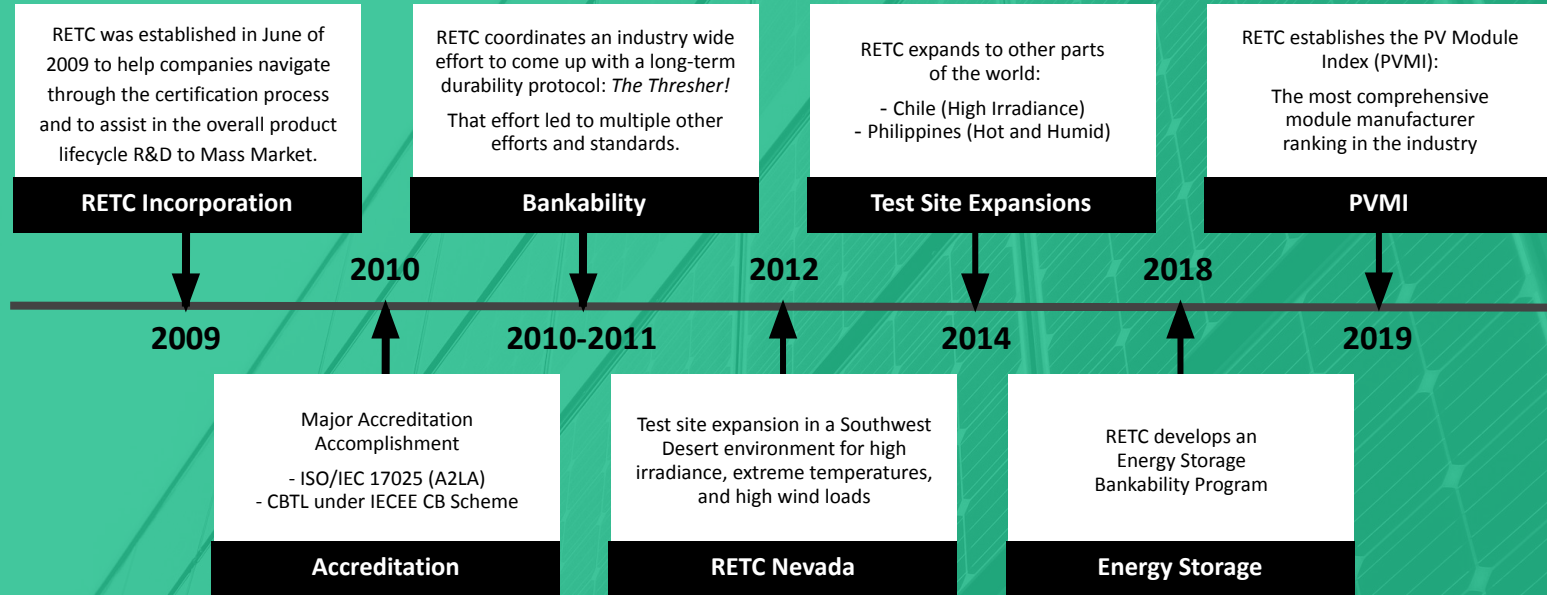
Module Wind Load Resistance: Standards vs. Reality

Daniel Chang | August 30, 2021



12+ YEARS OF SERVICE

We test products from a broad range of PV modules and batteries—and we're great at it too!



MODULES + RACKING COMBOS AFFECT **PERFORMANCE**

PV + Tracker = Utility Solution



Source: Solar Power World



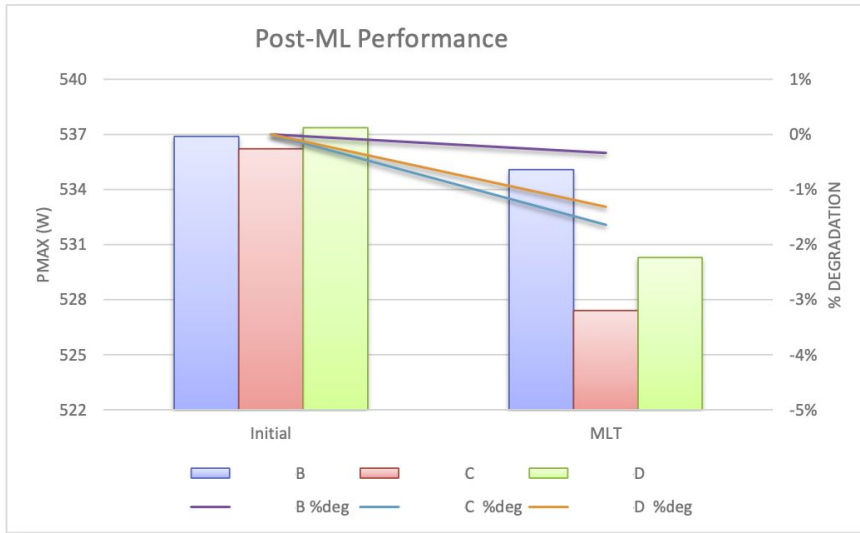
Source: Greentech Media



Source: Solar Novus

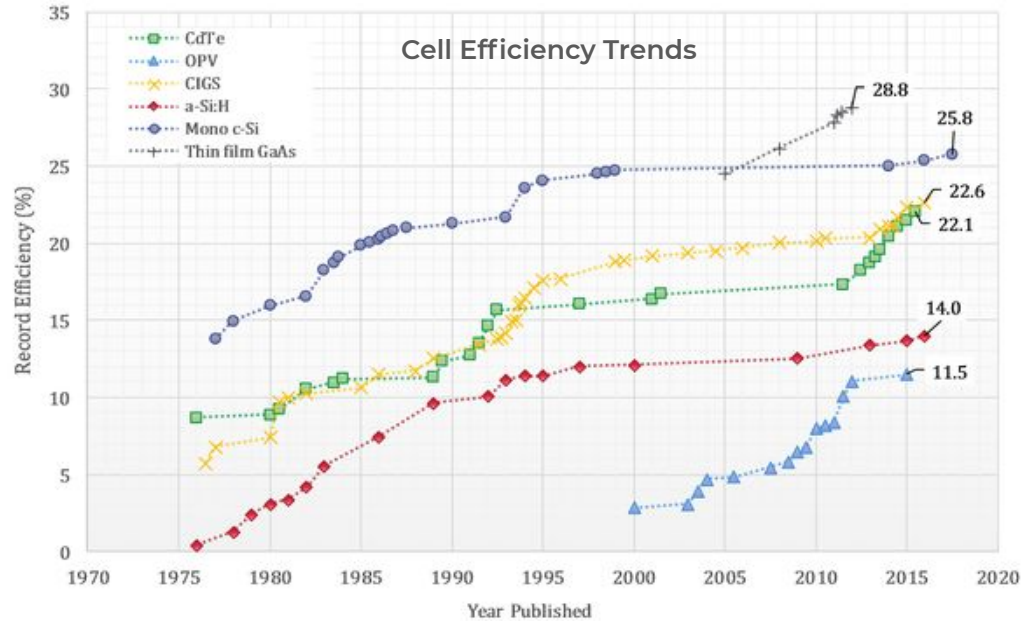
Current Standards to Measure Tracker Loads

Balanced loading is a good starting point to understand potential module power losses in high wind load scenarios



PRESSURE GRADIENTS **IMPACT** **BIFACIAL & LFM TECHNOLOGY**

Large-Format Modules



Source: Emma Spooner, University of Sheffield

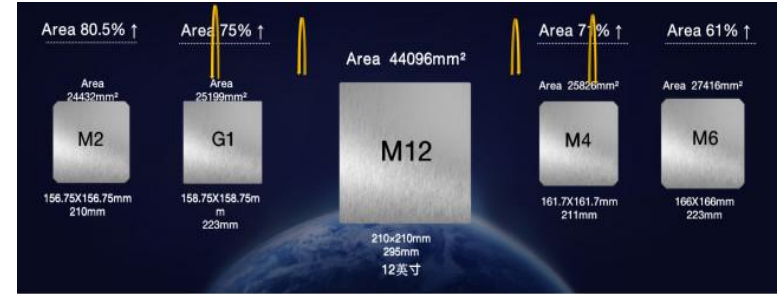
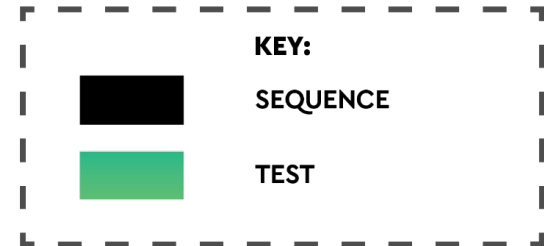
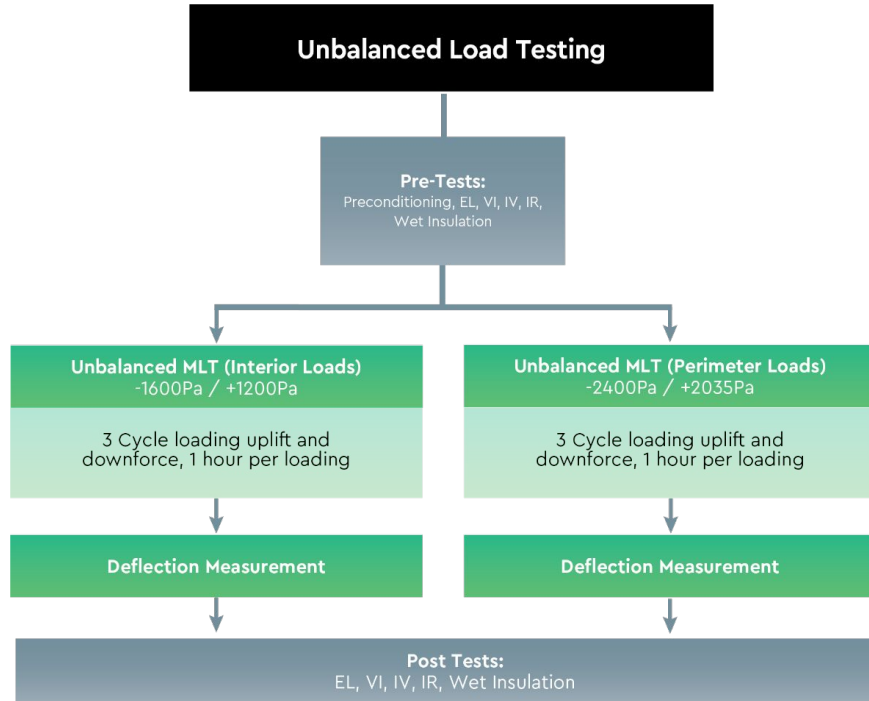


Image: Zhonghuan Semiconductor

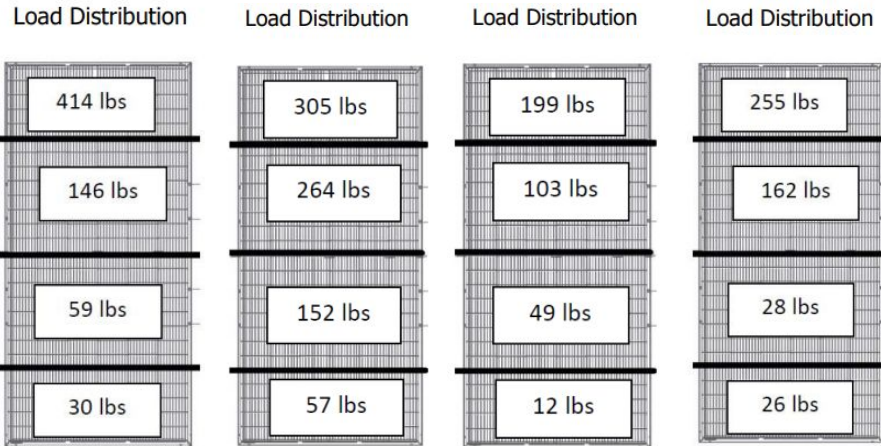


Mechanical Load Test Flow

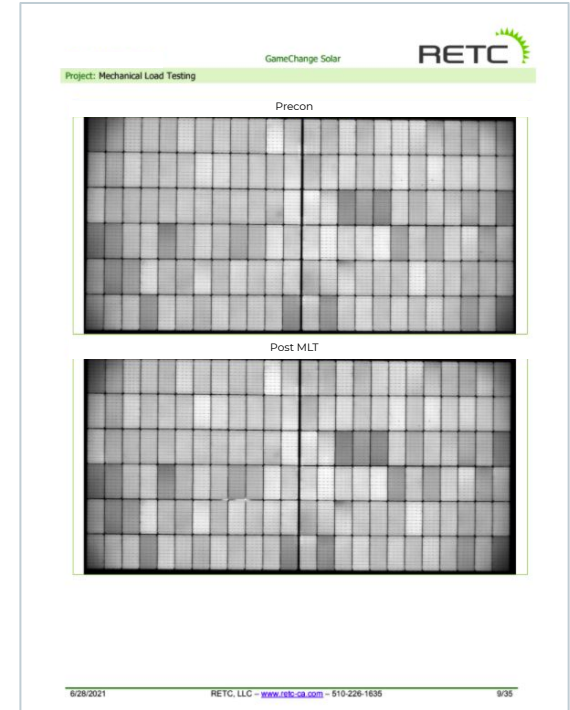
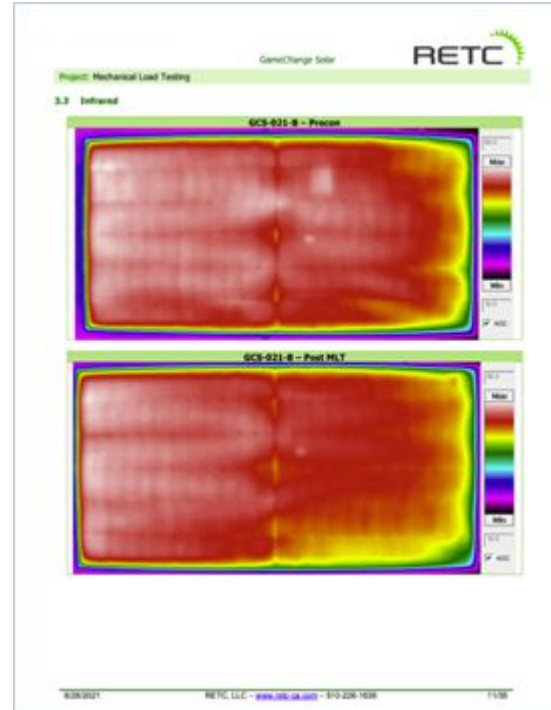


Unbalanced Load Testing

Varying the load distributions emulates actual wind loads the module will experience in its lifetime on the trackers



Unbalanced Loading Report + Results



FOR MORE INFO

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