



## Case Study

# Accelerating Quality at Scale for a Global Renewable Energy Innovator



# About Client

**Client :** A Leading Global Renewable Energy Technology Company

**Industry :** Renewable Energy / Energy Technology

**Products/Services :** Solar microinverters, energy storage systems etc.

**Operations :** Global (Headquartered in Fremont, California, USA)

**Customers :** Residential homeowners, solar installers, and businesses

## Business Challenge

With fast-paced development cycles and increasingly complex features, the client's manual testing processes couldn't keep up. Releases every two weeks left little room for thorough regression, and inconsistently maintained test cases increased the risk of defects slipping through. They needed a smarter, more scalable QA strategy that could support speed without sacrificing accuracy.

## CCS Solution

### Revamped and Reorganized

We started by decluttering their test suite—removing redundancies, structuring cases by function, and housing everything in TestRail for centralized control. The result? A leaner, cleaner, more maintainable regression suite.

### Smarter Test Design

Applied proven techniques like Boundary Value Analysis, Equivalence Partitioning, and State Transition Testing to sharpen coverage and catch edge-case bugs early. We didn't just test more—we tested smarter.

## **Automation with Purpose**

Enhanced and maintained a reliable, scalable automation framework using Selenium, TestNG, and the Page Object Model, ensuring that critical test cases ran automatically with every release. Allure Reports added visual clarity for faster defect triage.

## **Seamless Agile Integration**

Integrated with Jira to align testing with sprints, enabling traceability from user stories to test cases. Agile ceremonies included regular feedback loops for continuous improvement.

# **Business Benefits**

## **Fast, Confident Releases**

Releases stayed on schedule—even at two per month—backed by dependable, automated regression and smarter test execution.

## **Sharper Accuracy, Fewer Surprises**

Intelligent test design improved early defect detection, minimizing last-minute bugs and post-release firefighting.

## **Productivity on Overdrive**

Manual effort dropped significantly. With automation and clear documentation, even new QA engineers could hit the ground running.

## **Stronger QA, Lower Risk**

With structured validation and test coverage aligned to business impact, the risk of high-priority issues reaching production dropped dramatically.

## **Scalable for the Future**

The solution not only fixed today's problems—it built a QA foundation ready for tomorrow's growth.





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