



**Allion USA**'s clients often come to us with concerns around effectively meeting their customers' needs with newly developed, proprietary technology. Recently, a client approached us with an interesting challenge: they wanted to add a wireless subsystem, or a Wi-Fi communications layer, to their residential solar energy systems, but were struggling with **“what”** and **“how?”** Their expertise is in solar technology, not selecting, installing and testing wireless communications.

## A New Way to Harness the Sun

The company offers its customers a convenient method for deploying solar; saving them time, money, and hassle. This method is often called “solar-as-a-service”, where a company finances, installs and maintains a solar array atop a home, while the homeowner simply pays for the energy that is generated. By incorporating wireless capabilities into their solar design, the company hoped to increase flexibility for system installation, maintenance, and create less of an “eyesore” on customer homes that results from wired networking. The developers had a great idea on their hands, but were running into issues when it came time to guarantee the product would successfully deploy in the marketplace.

## The Challenges of Untethering a Solar Panel

The company first turned to its panel manufacturers based overseas, however they did not have the expertise to reliably incorporate wireless capabilities into the panels. The solar company then turned to various wireless testing facilities for help, but they too were unable to provide the guidance the company was looking for, or craft a suitable test plan to meet the company's needs. Said testing vendors were limited to wireless standard compliance testing and unable to offer the necessary direction and system interoperability tests.

## Rising Above the Rest

Left wondering if their idea would ever be market-ready, the team contacted **Allion USA** for help. Understanding the client's needs from both a technical and product management standpoint, the **Allion USA** team quickly went to work developing a customized solution to meet the solar company's unique needs. And, by utilizing **Allion USA**'s dedicated test houses and their library of thousands of consumer electronic devices, we were able to conduct real-world interoperability testing to determine how the panel's wireless subsystem would function when actually placed on a home. The added conveniences of working within the same relative time zone – increased process efficiency, immediate identification of bugs, subsequent testing, and same-day solutions – all contributed to the client's ultimate success.

**Allion USA** is no stranger to a challenge. Our team of experts is ready to take on your testing predicaments and smooth the process to deployment just as we did for this client. Contact us today to learn more about the services **Allion USA** has to offer and how we can help you achieve success.