



A Facilities-Centered Vision to Accelerate Clean Energy Innovation

Background

In 2016, the Department of Energy asked clean energy innovators, companies, and investors about the top barriers to early-stage startup successes in the sector. The most cited barriers were:

- Ability to test, validate, and demonstrate new technologies
- Access to capital
- Access to industry collaborations

The Clean Energy Institute (CEI) heard much the same in our 2015 listening tour and 2016 workshops with industry, government, nonprofits, and universities. These barriers point to a facilities-centered approach for reducing the time and capital needed to translate research discoveries into scalable energy products.



Washington Clean Energy Testbeds

A Facilities-Centered Approach

Our first facility, the Washington Clean Energy Testbeds, is a single-stop venue that offers open access to:

- **New Ideas and Expertise:** A vibrant university, startup, and industry research environment.
- **Advanced Capabilities:** Training and instruments for prototyping, testing, and demonstrating technology.
- **An Agile Talent Pool:** A concentration of clean energy technical talent.
- **Pathways to Market:** A level of activity that attracts early-stage funders and strategic partners from industry.

With Washington state and philanthropic support, CEI has focused its first testbed facilities on **scalable ultra-low-cost manufacturing of solar cells and electronic devices, next-generation battery devices and control, and system integration software/hardware challenges**. These areas leverage deep research expertise in Washington and a global network of complementary research capabilities.



CAMCET

Center for Advanced Materials and Clean Energy Technologies

CEI has proposed a plan to the state of Washington, and is seeking additional partners, to amplify the region's capabilities for clean energy innovation by creating The Center for Advanced Materials and Clean Energy Technology (CAMCET). **CAMCET will be the world's premier cleantech innovation building that brings students, faculty, industry, investors, and startups together.** The space will include:

- **Teaching:** STEM project teaching labs and collaborative social learning spaces.
- **Research:** Wet, dry, and computational research lab modules, and significant space for shared instrumentation and equipment.
- **Industry:** CEI's Washington Clean Energy Testbeds will move here. The building will also have startup lab modules and hot desks for visitors (industry and investors).
- **Public:** Venues for events, conferences, and K-12 and public outreach.



CAMCET