



## Mitigate Risk and Optimize Your Solar Energy and Storage Investment



### KEY EQUIPMENT FINANCE

Key Equipment Finance, a division of Key Bank, is a leading provider of Tax Equity Financing and Development Liquidity for many commercial and institutional Developers in North America. Since 2016, Key Equipment Finance has partnered with CEA to provide Independent Engineering Services on a majority of their PV Solar projects in the United States.



#### CEA Services are Tailored to Give Investment Confidence

Within this relationship, CEA has created a customized Desktop Review process that focuses on select project details which define the financial viability and risk profile of each project. This process has proven to be highly flexible in order to meet the needs of large ground-mount projects, but has also been used to successfully and efficiently to review broad portfolios of 10 or more systems within a single financing tranche.



#### CEA Provides Renewable Energy Boots and Brains

A key part of each engagement is a comprehensive Site Inspection. CEA's team of expert solar engineers is involved through all phases of the project. The engineer who is writing the report is the same representative who is traveling to the site and seeing the as-built system with their own eyes. CEA's staff are also interacting face-to-face with construction personnel to gain insight into project history that would otherwise be outside of the engineer's visibility.



#### When Results Matter, CEA Promises an Exceptional Experience

The final phase of each project is compiling an Independent Engineering Report that serves as a definitive record of project bankability. CEA employs a 3-tier system where each component of the overall project is graded based on multiple factors as either green, yellow, or red. In this way, the deep solar PV experience that CEA engineers bring to each project is still accessible, regardless of their technical background and solar knowledge of the reader. CEA's reports can be easily understood by financiers, government officials, executive sponsors, or other engineers.

# PROJECTS

*105 MW independent engineering projects*

*80 PV Systems analyzed*

*12 U.S. States inspections completed, 4 years of trust, and counting*



**Size:** 12 MW – 3 Projects

**Location:** Oregon, U.S. **Year:** 2018

**Type:** Single Axis Tracker

**Service:** Independent Engineering Report

**CEA Value Add:** Independent engineering report, including review of equipment, site design, permits, environmental report, geotechnical reports, PPA/ interconnection agreement.

**Size:** 10 Rooftop Sites

**Location:** Virginia, U.S. **Year:** 2019

**Type:** Institutional Rooftops

**Service:** Independent Engineering Report

**CEA Value Add:** Institutional district with 10 rooftops. Sensitive facilities with limited access and unique architecture requirements. Part of continuing sequence of portfolios with same developer totaling more than 30 sites in 2019 - 2020.



**Size:** 12 Carport Sites

**Location:** Arizona, U.S. **Year:** 2019

**Type:** High-Clearance Structures

**Service:** Independent Engineering Report

**CEA Value Add:** Carports for Emergency Services district including 12 separate sites in a single region, some with up to 3 carport structures per site. Special requirements for security and clearance for large vehicles.

**Size:** 6MW

**Location:** Massachusetts, U.S. **Year:** 2017

**Type:** Single Axis Tracker

**Service:** Independent Engineering Report

**CEA Value Add:** Large commercial site representing significant capital expenditure for a single energy model and interconnection. Increased requirement for precision and accuracy of projections.



Clean Energy Associates (CEA), a solar and storage technical advisory firm, provides quality assurance and independent engineering solutions worldwide. We serve financial institutions, project developers, EPCs, IPPs, and power plant owners. From our base in China, CEA's quality control engineers travel worldwide to conduct upstream in-factory technical evaluations, including factory audits, production monitoring and pre-shipment product inspections. Our US-based product management and engineering (IE/OE) teams provide support throughout the project life cycle, from upstream supply chain management and supplier benchmarking, to downstream system design, construction, commissioning, performance assessment, re-power and optimization as well as warranty support. We serve the solar and storage industries through our expertise in PV modules, racking, inverters and energy storage systems. Since 2008, CEA has reduced buyers' risks and improved returns on investments via quality assurance, technical and financial due diligence and engineering services.

*As technical advisors, we provide procurement and investment confidence through risk mitigation to key stakeholders in solar and storage projects worldwide*

