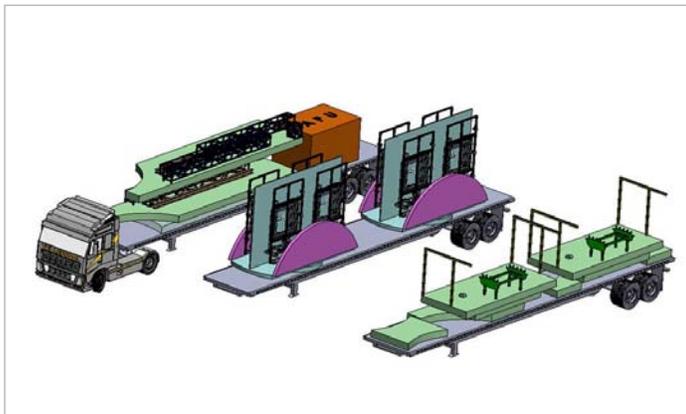


# Flexible Assembly Solar Technology

<b>BRIGHTSOURCE ENERGY</b> 	
PROGRAM:	SunShot CSP R&D 2012
TOPIC:	Advanced Collectors
LOCATION:	Oakland, California
AWARD AMOUNT:	Up to \$4.9 million
PROJECT TERM:	2012–2015



The FAST system will reduce the overall cost to build and install heliostats and eliminate the need for a complex assembly facility. *Image from BrightSource Energy*

## MOTIVATION

Construction of the solar collector field is one of the largest single components contributing to the levelized cost of energy (LCOE) of power tower facilities. Much of this expense derives from the current method of assembling and installing the heliostats. Currently, the mirrors are assembled onsite at a facility known as the heliostat assembly building (HAB). The mirror assemblies are then stored onsite until they can be transported to the collector field and secured on steel pylons.

## PROJECT DESCRIPTION

The research team is applying automation processes to the design of a Flexible Assembly Solar Technology (FAST). FAST is an automated collector-assembly platform that can be used for rapid assembly and installation of heliostats at a solar power tower plant. BrightSource will design and deploy a FAST prototype under this award.

## IMPACT

FAST has the potential to decrease costs related to permitting, construction, maintenance, operation, storage, and demolition of the HAB. With a man-hour reduction target of 50% per unit of reflecting area, this effort aims to achieve the SunShot Initiative's target installed solar field cost of \$75/m<sup>2</sup>.

## CONTACTS

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### Partnering Organization:

- BrightSource Industries

For more information, visit the project page at: [www.solar.energy.gov/sunshot/csp\\_sunshotrnd\\_brightsource.html](http://www.solar.energy.gov/sunshot/csp_sunshotrnd_brightsource.html).