

2020 TIBBETTS AWARD WINNER

# Ubiquitous Energy



U.S. Small Business Administration



SBIR·STTR  
America's Seed Fund  
POWERED BY SBA

**Ubiquitous Energy has successfully raised over \$25M in funding from the private sector as it approaches full-scale commercialization of its transparent solar technology - the NSF SBIR program was critical in advancing the state of the technology and general transparent solar development.**

## LOCATION

**CA**  
Redwood City

## PHASE III FUNDING

**\$25M**

## FUNDING AGENCY

**NSF**  
National Science Foundation

## Impact & Achievement

Imagine a world in which every pane of glass generates renewable electricity from sunlight while we continue to enjoy spectacular views - Ubiquitous Energy, a world leader in transparent photovoltaics, has been diligently working to make this a reality.

Ubiquitous Energy's transparent coating harvests solar energy and serves as an invisible, onboard source of electricity for a variety of end products. The thin coating can be applied to the surface of window glass to provide electricity generation and energy efficiency. Originally spun out of MIT, Ubiquitous Energy has developed an award-winning technology after nearly a decade of R&D, and is now producing its highly transparent, efficient solar cells in its window prototype facility in Silicon Valley.

The National Science Foundation (NSF) Small Business Innovation Research (SBIR) funding the company received was instrumental in supporting and funding the company to establish the fledgling business as a private endeavor after spinning out of MIT. In addition to the financial support provided by the award during the company's early days, the SBIR-funded project was critical in advancing the state of the technology and the field of transparent solar development, including through peer-reviewed publications written as a result of the funding. The project successfully reached its goals by obtaining relevant area, lifetime, aesthetic, and form-factor objectives that demonstrated the feasibility of developing the proof-of-concept prototypes for commercially viable, transparent, PV window film that can be applied to glass surfaces at the point of window fabrication or as a retrofit on existing windows.

As a result of Ubiquitous Energy's vision, innovation, and efficient use of its SBIR funding, the company was able to answer an important and attractive question, "What if, instead of acres and acres of solar and wind farms you could produce energy from commercial window glass?" The successful NSF SBIR project, and fabrication of proof-of-concept prototypes was instrumental in helping the company receive \$7M Series A equity investment from the private sector in 2014, and subsequent \$15M series A-1 in 2017. This also enabled the company to expand its operations and facilities and hire additional employees, the company has seen a 100%+ staff increase since Series A, and 50% of staff have PhDs.

To date, Ubiquitous Energy has successfully raised over \$25M in funding from the private sector as it approaches full-scale commercialization of its transparent solar windows. The company is currently producing small size windows (14" x 20") at its facility in California that are being installed in projects throughout the U.S. and will be used for sampling to large building developers and architects for future projects. The company points out that on a national scale, over 1 billion square feet of window glass were installed in the United States in 2019 alone, comprising the majority of many buildings' exteriors. As buildings contribute to 40% of the total energy consumption, a reduction of 10 to 30% of building energy consumption would lead to a total national energy consumption of up to 12%, greatly reducing our carbon footprint and reliance on fossil fuels.

[www.ubiquitous.energy](http://www.ubiquitous.energy)