

## **Invert™ Self-Shading Window System Receives Prestigious 2021 National Design Award for Climate Action**

TBM Designs' **InVert™ Self-Shading Window System** is the recipient of the 2021 National Design Award for Climate Action, presented by Cooper Hewitt, Smithsonian Design Museum.

Invented and designed by co-founder, Doris Sung, the InVert™ self-shading window system minimizes energy usage by reducing the need for air conditioning in buildings by more than 25%. The system requires no electricity, controls, human intervention, or maintenance.

By using smart materials, specifically thermo-bimetal, sealed inside a standard double-paned window cavity, the InVert™ system reflects heat away from the building. Importantly, its design allows for full color spectrum and daylighting through the window, factors that are necessary for human wellness.

"It is essential to take real action to combat climate change and its detrimental effects on the lives of people all around the world, and InVert™ is a very real solution that can immediately reduce a building's emissions by reducing air conditioning use," commented Karen Sabath, TBM's CEO and Sustainability Leader.

Ms. Sung, who is also TBM's Chief Technology Officer, emphasized that, "The use of smart materials in this technology allows a building to be beautiful and energy efficient while also being a healthy environment for its occupants. We spend 90% of our time indoors and with InVert™ we can achieve substantial energy savings and still get daylighting and color spectrum into the space."

To see InVert™ in person, visit the sm[ART]box at Cal State Long Beach. [More information is available here.](#)

### **About the National Design Awards**

The National Design Awards are presented for design innovation and impact in nine categories and First Lady Jill Biden served as the Honorary Patron for this year's awards. Cooper Hewitt established the National Design Awards in 2000 as a project of the White House Millennium Council, and they bring national recognition to the ways in which design enriches everyday life. Winners are selected by a diverse six member jury of design leaders and educators.

<https://www.cooperhewitt.org/national-design-awards/2021-national-design-awards-winners/>

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### **Awards for InVert™**

[Green Good Design Product](#), The Chicago Athenaeum, 2021  
C40 Women for [Climate Tech Challenge](#) 2020 and 2019 Finalist  
[Architecture Masterprize](#) Product Design Winner 2020  
Architect Magazine [2020 R & D Award](#)  
[Architectural Record](#) Editor's Choice 2019  
Architect's Newspaper [Best of Facades Award 2019](#)  
Architizer A+ Facades: [Glass+Glazing 2019](#)

**TBM Designs' mission** is a sustainably driven company focused on innovative "smart" building products that save energy, reduce greenhouse gases and support a cyclical economy while considering human and planet wellness. The Invert™ Self-Shading Window system is the first product being brought to market. InVert™ uses thermo-bimetal inside a standard window cavity to dynamically block solar heat gain and reduce energy use. Requiring zero energy and no controls, the individual pieces of thermo-bimetal respond to the sun and curl to block heat from entering the building, in turn using up to 25% less air conditioning and reducing greenhouse gas emissions. InVert™ retains high levels of natural daylighting and full-color spectrum, both essential to human wellness. Its magical beauty keeps humans in tune with nature and the environment. More information at [tbm-designs.com](http://tbm-designs.com).