



# Compete and Experience an Unparalleled Opportunity

The National Renewable Energy Laboratory (NREL) manages competitions, prizes, and similar contests to support the next generation of scientists and entrepreneurs. These are the events administered by NREL on behalf of the U.S. Department of Energy (DOE) Office of Energy Efficiency and Renewable Energy.

The best and the brightest.  
Our next generation of  
energy leaders. America's  
ingenious entrepreneurs.  
Thousands have competed  
and gained an invaluable  
experience. Join us today!

[www.nrel.gov/compete](http://www.nrel.gov/compete)



## Collegiate Competitions

These competitions provide hands-on learning for future scientists and researchers that complements coursework and curriculum at their collegiate institutions worldwide. Competitions provide an opportunity for students to challenge their creativity, passion, and skills to address real-world issues.



The **Collegiate Wind Competition** challenges interdisciplinary teams of undergraduate students from a variety of programs to offer unique solutions to a complex wind energy project.

Students must work together to design, build, and test a wind turbine, plan and financially analyze a wind plant, and develop connections with both the wind industry and their local community. This challenge provides students with real-world experience to help them prepare to enter the wind industry workforce and fill a growing need for better qualified workers at all levels.



The DOE **Cyberforce Competition** challenges college students to protect imagined businesses from simulated cyberattacks. Using critical-infrastructure-focused, real-world scenarios, the competition helps

participants and volunteers increase their knowledge and understanding of cyber-physical threats, vulnerabilities, and consequences.



The **Geothermal Design Challenge™** inspires students to develop innovative solutions to geothermal energy application challenges and raise public awareness of geothermal resources while

developing career skills to prepare for the clean energy workforce. The semester-long competition centers on creative approaches to communicating the science and benefits of geothermal energy, including infographics, data visualization, and geospatial mapping.



**JUMP** (Join the discussion, Unveil innovation, Make connections, Promote tech-to-market) **into STEM** focuses on creative ideation and

diversity in the building science field. Since 2015, this collegiate competition has been inspiring the next generation of engineers and scientists by giving them a unique platform to develop solutions for challenges facing the building science industry. Winners are awarded paid, 10-week summer internships at NREL or Oak Ridge National Laboratory.



### Marine Energy Collegiate Competition

challenges interdisciplinary teams of students to offer unique solutions for marine energy to power the blue economy. Students will have the opportunity to create real devices that could be used to provide power in the difficult ocean environment to help us better monitor for dangerous storms, protect crucial food sources, or provide access to clean drinking water. The competition will provide students with real-world experience and industry connections that will help them prepare for future opportunities in marine energy and the blue economy.



The U.S. Department of Energy **Solar Decathlon®** is a collegiate competition that has inspired thousands of students worldwide to enter the clean energy

workforce since its inception in 2002. Today, the 10 contests that are the foundation of Solar Decathlon challenge students to design and build high-performance, low-carbon buildings that mitigate climate change and improve our quality of life through greater affordability, resilience, and energy efficiency. The winners are those teams that best blend architectural and engineering excellence with innovation.



The **Solar District Cup** challenges multidisciplinary student teams to design and model optimized distributed solar energy systems for a campus

or urban district. These systems integrate solar, storage, and other distributed energy capabilities across mixed-use districts, or groups of buildings served by a common electrical distribution feeder. The competition engages students across the engineering, urban planning, and finance disciplines to reimagine how energy is generated, managed, and used in a district. The goal is to design, model, and present the most reliable, resilient, and cost-effective system possible.



## American-Made Challenges

The American-Made Challenges incentivize the nation's entrepreneurs to reassert American leadership in the energy marketplace. These new challenges seek to lower the barriers U.S.-based innovators face in reaching manufacturing scale by accelerating the cycles of learning from years to weeks, while helping to create partnerships that connect entrepreneurs to the private sector and the network of DOE's national laboratories across the nation.



**Envelope Retrofit Opportunities for Building Optimization Technologies (E-ROBOT) Prize**



**Energy Program for Innovation Clusters (EPIC) Prize**



**FAST Commissioning for Pumped-Storage Hydropower Prize**



**Fish Protection Prize**



**Geothermal Manufacturing Prize**



**Groundbreaking Hydro Prize**



**I AM Hydro Prize**



**Lithium-Ion Battery Recycling Prize**



**Solar Prize**



**Solar Desalination Prize**



**Water Resource Recovery Prize**



**Waves to Water Prize**

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