

For Immediate Release  
EcoCAR  
April 22, 2022

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**The U.S. Department of Energy, General Motors and MathWorks Announce the  
EcoCAR EV Challenge – Diverse Talent Pipeline Prepares for EV Future**  
*Universities Receive \$6M to Re-engineer a 2023 Cadillac LYRIQ*

**WASHINGTON, April 22, 2022** –The [U.S. Department of Energy](#) (DOE), [General Motors](#) and [MathWorks](#) today announced the 15 North American universities selected to join the EcoCAR EV Challenge, the next DOE-sponsored Advanced Vehicle Technology Competition (AVTC) set to begin in Fall 2022, and the 2023 Cadillac LYRIQ as the vehicle selected for the challenge.

More than \$6 million will be provided to the selected universities, including five Minority Serving Institutions, for students to pursue advanced mobility research and experiential learning. This investment supports the recruitment and retention of underrepresented minority students and faculty to help build an EV talent pipeline that reflects the diversity of North America.

Managed by Argonne National Laboratory, the EcoCAR EV Challenge will be at the cutting edge of automotive engineering education, serving as a proving ground for future automotive engineers. The four-year competition will challenge students to engineer a next-generation battery electric vehicle (BEV) that deploys connected and autonomous vehicle (CAV) features to implement energy efficient and customer-pleasing features, while meeting the decarbonization needs of the automotive industry.

“These budding energy leaders are heeding President Biden’s call to get more Americans into EVs,” said **U.S. Secretary of Energy Jennifer M. Granholm**. “Collegiate competitions like EcoCAR are critical to building a clean energy talent pipeline that reflects the diversity of America and make room for more domestic manufacturing to strengthen our energy independence.”

General Motors will donate a 2023 Cadillac LYRIQ to each team, challenging them to design, build, refine, and demonstrate the potential of their advanced propulsion systems and CAV technologies over four competition years. Teams will be tasked with complex, real-world technical challenges including enhancing the propulsion system of their LYRIQ to optimize energy efficiency while maintaining consumer expectations for performance and driving experience.

“We are proud to support EcoCAR and its mission to help prepare the next generation of the automotive workforce,” said Steve Carlisle, GM executive vice president and president, North America. “As students work on the LYRIQ they’re developing real-world knowledge and skills that will help accelerate their impact on the transformation of the auto industry. The EcoCAR program provides an exceptional educational experience for students and an exceptional talent pipeline for GM. We look forward to working with these students on our journey toward a zero emissions future.”

To improve diversity in STEM and higher education, diversity, equity, and inclusion will be incorporated into all areas of the competition. Teams will be challenged to identify and address specific equity and electrification issues in mobility through the application of innovative hardware and software solutions, outreach to underserved communities and underrepresented

youth to increase awareness about advanced mobility and recruit underrepresented minorities into STEM fields. Five Minority Serving Institutions, including two Historically Black Colleges and Universities (HBCUs), will also share more than \$1 million to strengthen their automotive programs and recruit and retain underrepresented minority students and faculty.

“We are thrilled to once again partner with the DOE and GM to give students real-world laboratory opportunities,” said Lauren Tabolinsky, Academic Program Manager for MathWorks. “Providing the latest tools and resources for the university teams is a crucial element in educating the next generation of engineers and preparing them to begin their careers, especially with the development of EV technology.”

The universities selected to participate in the EcoCAR EV Challenge include:

- Embry-Riddle Aeronautical University/ Bethune-Cookman University
- Georgia Institute of Technology
- Illinois Institute of Technology
- McMaster University (Canada)
- Mississippi State University
- Ohio State University / Wilberforce University
- University of Alabama
- University of California, Riverside
- University of California, Davis
- University of Texas at Austin
- University of Waterloo (Canada)
- Virginia Tech
- West Virginia University

“Argonne has managed the Advanced Vehicle Technology Competitions program for DOE in partnership with the auto industry for more than three decades. The EcoCAR EV Challenge will build upon the program’s rich history to provide North America’s premier training ground for future EV engineers. Academia and Industry both recognize the role of experiential learning in helping to prepare students for the rapidly evolving automotive workforce,” said Kristen Wahl, Director of the Advanced Vehicle Technology Competition (AVTC) Program at Argonne National Laboratory. “This year, the selection process was highly competitive due to the number of outstanding applications we received from universities, big and small, across the U.S and Canada. We are excited to see what these teams will accomplish in supporting the country’s transition to clean energy and electric vehicles.”

These universities will build student teams with multi-disciplinary engineering skill sets, such as Mechanical, Electrical, Computer, and Software engineering. The teams will also engage students from various other backgrounds such as Communications, PR, Business and Project Management to emulate the real-world experience of working in the automotive industry. This cross-disciplinary approach is critical to success in EcoCAR and also prepares students for successful careers in the mobility sector.

The competition will kick off in Fall 2022 and conclude in May 2026. For more information, please visit [ecocarevchallenge.org](https://ecocarevchallenge.org) or [avtcseries.org](https://avtcseries.org).

**About EcoCAR EV Challenge:**

EcoCAR EV Challenge is a four-year collegiate engineering program that builds on the successful 34-year history of Department of Energy Advanced Vehicle Technology Competitions (AVTC) that exemplify the power of government/industry partnerships in addressing our nation's toughest energy and mobility challenges and providing invaluable practical skills of promising young minds ready to enter the workforce.

The EcoCAR EV Challenge is managed by Argonne National Laboratory and sponsored by the U.S. Department of Energy, General Motors, and MathWorks as the headlining sponsors.

General Motors provides each of the competing teams with a Cadillac LYRIQ – the brand's first all-electric vehicle built on GM's Ultium Platform which encompasses a common set of propulsion components – battery cells, modules, packs and a family for Ultium Drive units. GM also provides vehicle components, seed money, technical mentoring and operational support.

A foundational principle of EcoCAR is the use of Model-Based Design, a mathematical and visual design approach using MATLAB and Simulink that enables users to manage projects quickly and cost-effectively, collaborate on designs, and develop complex embedded systems. MathWorks provides teams with a full suite of software tools, simulation models, training, technical mentoring and operational support.

The U.S. Department of Energy and its research and development facility, Argonne National Laboratory, provide competition management, team evaluation and logistical support. Other sponsors provide hardware, software and training.

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