

## CALIFORNIA STATE UNIVERSITY, LOS ANGELES

COLLEGE OF ENGINEERING, COMPUTER SCIENCE, AND TECHNOLOGY Department of Technology

Dear STARS program:

This letter is to apply the Cal State LA EcoCAR 3 team for an "Innovation" credit under the STARS program. EcoCAR 3 is an advanced plug-in hybrid vehicle design and build competition sponsored by the Department of Energy and General Motors and managed by Argonne National Laboratory. The four-year competition began in fall 2014. EcoCAR 3 follows the EcoCAR 2 competition, where Cal State LA placed 2<sup>nd</sup> out of 15 universities in 2013 and 9<sup>th</sup> in 2014.

EcoCAR 3 challenges 16 North American universities to redesign a stock 2016 gasoline Chevrolet Camaro into a hybrid vehicle that will:

- reduce environmental impact of vehicles
- minimize fuel consumption
- retain performance, safety, and consumer appeal
- provide research and innovation to students

For EcoCAR 3, Cal State LA team has selected a police theme with pursuit capability utilizing a plug-in hybrid architecture. We believe that switching to ethanol-based alternative fuel, enabling electric air conditioning, powering energy intensive loads from the battery pack and EV patrol modes will allow our vehicle to provide appreciable fuel economy along with substantial pollution and GHG reduction.

The cornerstone goal of the program is the preparation of the next generation of engineers who gain real-world research experience in the development of extremely complex advanced vehicle technologies. Six of the team members are now engineers at GM and several more are also working in the industry.

Besides the engineering effort, EcoCAR includes communications/outreach and business students to mirror a real-world company model in which many disciplines collaborate to form a successful business. The communications-related deliverables include youth outreach, community engagement, public relations, and marketing.

Currently the multidisciplinary team consists of 80 students representing mechanical engineering, electrical engineering, computer science, technology, communications, business,



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accounting and marketing students. The team has achieved the second place overall in 2013 competition and the Green Leadership Award by Los Angeles County the same year.

Cal State LA continues to be involved with the AVTC series because it believes it is the best way to prepare its students for the world of complicated multidisciplinary projects. It provides the kind of experience one can't find in a classroom but is vital to a student's education. Our team is the only one representing California out of the sixteen teams participating. Cal State LA EcoCAR project greatly exceeds the highest criterion of any existing STARS credit, and the institution has not previously received a STARS innovation credit for this specific program. Therefore, we truly believe that the Cal State LA EcoCAR 3 project should be recognized with the "Innovation" credit under the STARS program.

Sincerely yours,

Deid Blechman

David Blekhman, PhD Professor of Technology, Power, Energy and Transportation EcoCAR 3 Team Lead Advisor