







# FUTURECAR challenge

United States
Department
of Energy









## FUTURECAR — THE NEX

The first century of the automobile has seen many technological advances. But what will the car of the twenty-first century look like?

Engineering students from 12 North American universities are attempting to answer that question through the *FutureCar Challenge* by applying advanced technologies to today's mid-sized sedans. The *FutureCar Challenge* parallels the goals for the Partnership for a New Generation of Vehicles (PNGV).

PNGV is a partnership between eight federal agencies and the United States council for Automotive Research (USCAR), a Joint research venture among Chrysler Corp., Ford Motor Co., and General Motors Corp. Industry suppliers and university's also play a large role in the research program. Student engineers will attempt to achieve one of the programs most ambitious goals—developing a vehicle with up to three times the fuel efficiency of today's sedans while maintaining the price, performance and utility currently available.



## The Challenge

Each school has been given either a Dodge

Intrepid, Ford Taurus or Chevrolet Lumina to convert into a "FutureCar." Two annual design and performance evaluations will take place in June of 1996 and '97. The competition will culminate in a road rally where endurance, handling and consumer acceptability will be judged.

Targets	FutureCar 1996	PNGV 2004
Fuel efficiency	80 (miles per gallon)	80 (miles per gallon)
Passenger capacity	5	5-6
Luggage capacity	3.5 cubic feet	16.8 cubic feet
Range	250 miles	380 miles
Acceleration, 0-60 mph	16 seconds	12 seconds
Emissions	Federal Tier O	Federal Tier II

Students may use advanced technologies and hybrid electric vehicle powertrains. Hybrid vehicles contain two power sources—a primary source such as an internal combustion engine or gas turbine and a second source for energy storage such as flywheels, advanced batteries or ultracapacitors.

The FutureCar Challenge is sponsored jointly by the United States Department of Energy and (USCAR).

# T GENERATION



## Partnership Opportunities

FutureCar offers sponsors advertising and promotional opportunities, similar to those afforded race sponsors, but in many respects more focused and meaningful in terms of exposure to industry audiences. These audiences include industry decision makers who follow the *FutureCar Challenge*, as well as those who lead PNGV. Yet the motoring public is reached as well. For example, 1994 HEV Challenge vehicles appeared in major auto shows across the United States that drew more than 4 million spectators who examined the vehicles and saw the sponsors' logos.

#### **Other Benefits:**

Companies that join FutureCar as partners in this enterprise to inspire tomorrow's leaders will realize a number of other benefits, in addition to

having supported an important and very worthwhile program. They will be entering a satisfying, long-term relationship with the industry on a high plane, one that marks them as a visionary company concerned about the U.S. industry's future, a company determined to help assure the industry's continued global leadership. Through



their support, participating companies emphasize their commitment to the industry's national goals in competitiveness, technical achievement, and environmental improvements. They are providing support at a very meaningful, fundamental level to the colleges and universities that are training the supplier industry's engineering, manufacturing, marketing and managerial leaders of the future.

In-kind involvement in the program will bring the sponsors' personnel in direct contact with other industry representatives, including current and potential customers, partners and suppliers.

This involvement also will benefit the sponsors' own personnel, broadening their experience and exposing them to emerging new technologies as well.

And this close association with tomorrow's industry leaders opens a window on tomorrow's consumers and what they will demand in the on-board, diagnostic and support systems of the vehicles they expect to acquire.

Sponsors also have the opportunity to evaluate and recruit some of the best and brightest technical talent from the Challenge teams as they compete in a "real world" environment.



# For Additional Information on Sponsorship Opportunities, Contact:

Holly Johnson
Director of Sp

Director of Special Events

USCAR, FutureCar Challenge

3800 Pine Creek Drive

Metamora, MI 48455-9711

Tel. (810) 797-3723

Fax. (810) 797-4036



# Auto Class and Participating Universities

## Chevrolet Lumina

California State University, Northridge, California

Ohio State University, Columbus, Ohio

Virginia Polytechnic Institute, Blacksburg, Virginia

West Virginia University, Morgantown, West Virginia

### Ford Taurus

Concordia University, Montreal, Quebec, Canada

Lawrence Technological University, Southfield, Michigan

University of Illinois, Chicago, Illinois

University of Michigan, Ann Arbor, Michigan

#### **№** Dodge Intrepid

Michigan Technological University, Houghton, Michigan

University of California, Davis, California

University of Maryland, College Park, Maryland

University of Wisconsin, Madison, Wisconsin