2004 Tour de Sol Awards

While the Northeast Sustainable Energy Association (NESEA) celebrates the success of its Tour de Sol by showcasing greener vehicles manufactured by the auto and bus manufacturers at the Tour de Sol Festivals, it stays true to its mission, and offers a competition that pushes the envelope of automotive technology.

"We need to get off oil, cut greenhouse gas emissions, and use renewable fuels. The Tour de Sol is the only competition in the country that is helping us get to that goal," says Dr. Mike Seal of Western Washington University, and long-time participant in the Tour de Sol.

Approximately two-dozen student and independent teams competed in the five-day Tour de Sol Competition held May 21-25 in New Jersey and New York. There were a tremendous variety of vehicles participating in the event. Vehicle technologies included conventional internal combustion engines using alternative fuels, battery-electric vehicles, hybrids, and fuel cell vehicles. Alternative fuels used included biodiesel, biomethane (landfill gas), ethanol, and hydrogen.

Teams participated in two events that quantified the "greenness" of their vehicle including high fuel economy and low greenhouse gas emissions, as well as events that measured vehicle performance such as acceleration, handling, reliability and range (the distance you can drive before needing to stop to refuel.) The most coveted prizes are for vehicle efficiency and low greenhouse gas emissions. Vehicle efficiency is expressed in miles per gallon equivalent to the energy stored in one gallon of gasoline (MPGe). To calculate greenhouse gas emissions, NESEA works with the Department of Energy's Argonne National Laboratory to convert MPGe to grams of greenhouse gas emitted to travel one mile taking the full life cycle of the fuel, from production to wheels, into account. For example, for electric vehicles, the emissions of mining coal and generating electricity in northeast power plants is taken into consideration.

Methacton High School (PA) received the grand award for the most efficient light duty vehicle with 136 MPGe in a battery-electric vehicle. This is five times as efficient as a conventional gasoline vehicle. Cato-Meridian High School (MA) received the award for the most efficient one-person commuter vehicle, while Personal Electric Transports Inc.(PET) received the award for the most efficient vehicle overall with its electric Road

Ski stand-up scooter. This demonstrates the incredible efficiency of electric-powered vehicles, and that the smaller and lighter the vehicle the more efficient it becomes.

The grand award for the light-duty vehicle with the lowest greenhouse gas emissions was awarded to the Western Washington University's Viking 23. This vehicle, demonstrated that it could travel a mile and emit only 61 grams of greenhouse gas emissions. This is seven times less than a conventional 27-mpg gasoline vehicle that emits 420 grams of greenhouse gas emissions per mile, according to the U.S. Department of Energy. PET received the award for the lowest greenhouse gas emission vehicle overall with its electric Road Ski which emits 30 grams of greenhouse gas emissions per mile.

Student teams also receive "Best in Technology" awards. These awards take high fuel economy and low greenhouse gas emission into account, but also reward good acceleration, handling, reliability, and range. Central Trenton High School (NJ) took first place in the Hybrid and Alternative Fuel category, while Sterling College (VT) received a cash prize for from the National Biodiesel Board as the best vehicle using commercially-produced biodiesel fuel. Methacton High School took first place in the Battery-Electric Vehicle category and received a cash award from the Advanced Lead Acid Battery Consortium. The team used an Eagle Picher lead acid battery.

In the Solar-Electric Vehicle category, the University of Maine took first place with its two-person vehicle while Cato-Meridian High School took first place for its one-person vehicle.

In the Hydrogen Vehicle Category the University of Wisconsin at Madison received the award best its vehicle named Zero Carbon. NESEA also awarded UW its coveted Technology Innovation award. This student team received this award for building a vehicle, which demonstrates the ultimate goal of the Tour de Sol. They generated the energy used by the vehicle on-board from wind and solar, used hydrides to store its hydrogen fuel, and then used the hydrogen in a fuel cell. NESEA awarded a second Technology Innovation award to Electrovaya of Canada for developing practical advanced lithium polymer batteries for EV applications.

In the Production Division, Toyota's Prius captured first place for the third year in a row. Personal Electric Transports and RunAbout Cycles took top honors in a competition, new to the Tour de Sol this year, for electric bikes and scooters.

Each year, NESEA also awards the Bradford Teacher award to a teacher who demonstrates excellence in experiential education by empowering students to seek solutions to environmental challenges, and supporting them in the building of Earth-friendly vehicles. This Year, Dr. Michael Seal received this award for his legendary work with students at Western Washington University's Vehicle Research Institute, where he has built thirty-two advanced vehicles with his students.

"I am incredibly proud of all the teachers, students, and individuals involved in the Tour de Sol," says Nancy Hazard, Director of the event. "I'd like to congratulate all of them for their extraordinary effort, ingenuity, and vision, and for providing the world not only with inspiration to work together toward a better future, but also concrete examples of how we can get there."

General Motors Corporation and the New Jersey Board of Public Utilities are the sustainable energy partner sponsors of the 2004 Tour de Sol. Supporting sponsors include the American Honda Motor Company, Exelon Energy, the Federal Highway Administration, Ford Motor Company, the New York Power Authority, the New York State Energy Research and Development Authority, the New York State Department of Environmental Conservation, Toyota Motor Sales, USA, and the U.S. Environmental Protection Agency.

The annual Tour de Sol is organized by the Northeast Sustainable Energy Association (NESEA) headquartered in Greenfield, Massachusetts. NESEA is the nation's leading advocacy and education association promoting awareness, understanding, development, and adoption of non-polluting, renewable energy technologies. NESEA has worked successfully in the fields of transportation, building construction, and renewable energy for nearly 30 years.

For more information on Tour de Sol winners, greener vehicles, free educational resources on sustainable transportation, and NESEA's Green Car Club go to www.TourdeSol.org, www.nesea.org or call 413-774-6051.