Fuel savers win the race

Singapore cars bag seven awards at the Shell Eco-Marathon

WHO can go the longest for the least? Shell has been asking that question for nearly three decades. The Shell Eco-Marathon traces its roots to a friendly wager between engineers to see who could travel the furthest on a gallon of fuel 27 years ago. It has evolved into today’s competition for students to build and drive their own prototypes.

Last weekend’s Shell Eco-Marathon Asia at the Sepang F1 Circuit saw teams from Singapore score sterling results for both a 1-litre distance challenge for ordinary drivers, and a competition for students to build the most fuel-efficient cars.

There were 93 teams from 12 countries in competition, and eight cars bore the Singapore flag. They were fielded by groups from local tertiary institutions, and were all cheered on by Shell FuelSave ambassador, Eunice Olsen.

Between them, the Singapore teams picked up no fewer than seven prizes, including safety awards for cars from NTU and ITE, and a design award for the car from NUS.

The NTU team’s Venture IV diesel vehicle drove to victory in its class by recording a fuel economy rating of 564.2km/L, far exceeding the team’s own expectations. The 68kg car, with its 211cc, 4-horsepower diesel engine, drew its efficiency from its streamlined shape, lightweight construction and low-friction ceramic bearings.

Ngee Ann Poly’s NP-Distanza Proto out-distanced other hydrogen fuel cell cars in the E-Mobility class by reaching a record 84.9km on a kilowatt-hour of electricity — roughly enough to run a laptop for over 10 to 12 hours.

But overall victory went to Thailand’s Luk Jao Mae Khlonh Prapa team, whose ethanol-powered prototype car achieved an astonishing rating of 2,213.4km/L of fuel. The Thais also won the 1-litre FuelSave Challenge, which saw their team of regular drivers score a combined average of 15.952km/L, narrowly beating the 15.856km/L of the Singapore team.

“The difference was only a teaspoon of petrol,” said Singaporean team member Edmund Tay, who personally clocked the best individual score of 16.176km/L.

Although it seems suicidal for an energy company to get involved in reducing fuel consumption, Shell takes a pragmatic view of the matter. It expects the global vehicle population to double to 2 billion by 2050, with two-thirds of it still running on liquid fuels.

“As the developing countries increase their mobility requirements, they cannot have the same consumption patterns as before because of three basic issues of supply security, urban air quality and carbon dioxide emissions. For it to be sustainable, the consumption per capita of energy must be lower,” said Mr Cesar Romero, the vice-president of Shell Retail East.

“If we were to continue consumption as before, we’d reach a breaking point at which the CO2 levels and urban air quality will be hit. But then we would be significantly worse off because governments or society could have a revolution and say, ‘No more car ownership’.”

While student prototypes that can cover hundreds of kilometres on drops of fuel seem far removed from regular vehicles, Shell is hoping that its 1-Litre FuelSave Challenge will help drivers reduce fuel consumption immediately.

“Just that little bit less spent on fuel is important to me,” says Tay. “I have three kids and saving money means a lot for the family.”

Shell will be hoping that for him and other participants, the Eco-Marathon doesn’t truly end.

JULIAN LOW IN SEPANG, MALAYSIA