

Toyota Reinforces Efforts for Environmental Technologies and Environmentally Friendly Vehicles

Tokyo—TOYOTA MOTOR CORPORATION (TMC) announced today that—to achieve sustainable mobility and help preserve the global environment—it is enhancing its development of environmental technologies and strengthening its efforts to introduce environmentally friendly vehicles.

TMC's intensified engagement, represented by activities and achievements such as those described below, is being carried out with a view toward: 1) improving fuel efficiency to reduce emissions of CO₂, which is considered as a cause of global warming, 2) making exhaust emissions cleaner to help abate atmospheric pollution and 3) pursuing energy diversification to limit the use of fossil fuels, particularly that of petroleum.

Status of Technology Development / Plan for Environmentally Friendly Vehicles

1) Revamping of entire gasoline engine and transmission lineup

■ . . . TMC plans to completely revamp its gasoline engine and transmission lineup by 2010 in an effort that started with the development of a new type of V6 engine in 2003. As part of this effort, a new 1.8-liter gasoline engine (see below for details) and continuously variable transmission have been developed as the main powertrain for Toyota compact and midsize passenger vehicles. This new powertrain—to be introduced in new-model vehicles due out in the fall of 2006—is intended to reduce CO₂ emissions through high fuel efficiency and to achieve cleaner exhaust emissions.

■ . . . TMC achieved the Japanese government's 2010 fuel efficiency standards*1 in all weight categories of Toyota vehicles ahead of schedule in 2005*2.

■ . . . As a target for 2010, TMC aims to achieve emissions levels that are 75% lower than the 2005 emissions standards*3 and to exceed the level called for by the Japanese 2010 fuel efficiency standards by 10% or more for most passenger vehicle.

2) Making hybrid vehicles more widespread and developing new technologies

■ . . . TMC aims to make hybrid vehicles more widespread by doubling the number of hybrid models by the early years of the 2010s.

■ . . . TMC will advance its research and development of plug-in hybrid vehicles (which can be charged from an external power source and provide electricity) and is currently working on a next-generation vehicle that can extend the distance traveled by the electric motor alone and that is expected to have a significant effect on reducing CO₂ and helping to abate atmospheric pollution.

3) Initiatives toward the diversification of energy sources

■ . . . Regarding TMC's introduction of bioethanol-compatible vehicles, TMC has achieved the technology necessary to allow all TMC gasoline engines to run reliably on gasoline with 10 percent bioethanol content. TMC plans to introduce to the Brazilian market (where bioethanol fuel is widely used) flex-fuel vehicles*4 that can run on 100 percent ethanol in the spring of 2007. For the United States, TMC is considering introducing flex-fuel vehicles in consideration of policies to promote bioethanol fuels.

■ . . . TMC plans to further its development of fuel cell passenger vehicles and has successfully reduced by a large margin the time required for sub-zero fuel-cell-system startup and has achieved system startup at minus 30 degrees Celsius.

TMC positions global environmental preservation, along with traffic safety, as a priority management issue in terms of its corporate social responsibility. TMC is continuing to enhance its development of environmentally friendly vehicles and environmental technologies as it strives to actively deliver technologies and products that contribute to realizing sustainable mobility. TMC is also working to actively implement measures in accordance with its basic environmental policy, the Toyota Earth Charter, and in line with the Toyota Environmental Action Plan, which sets out specific medium and long-term activity targets.

*1Specified by the Japanese Law Concerning the Rational Use of Energy (for the business year from April 1, 2010)

*2The business year from April 1, 2005

*3Specified under the Japanese Ministry of Land, Infrastructure and Transport's Approval System for Low-emission Vehicles

*4Vehicles that can run on fuels mixed at any ratio of gasoline and ethanol, etc.