## Energy Demand to Continue Rising

## Transportation Represents the Quickest Growing Sector

As the world's population continues to grow, and economies throughout the world continue to develop, the demand for energy is also expected to continue increasing. The ExxonMobil "The Outlook for Energy" report examines the long term growth of energy demand to the year 2030.

According to the report, total global energy demand is expected to be around 40 percent higher in 2030 than it was in 2005, even after accounting for significant advances in energy efficiency. While power generation currently represents the largest sector, and the sector with the highest projected volume growth in the future, transportation represents the quickest growing sector and the sector most important to oil demand.

Between the years 1980 and 2005, global energy demand in the transportation sector increased by an average of 2.2 percent per year, with commercial demand (2.4 percent growth) outpacing demand for personal vehicles (2.0 percent growth). Within the commercial market, heavy-duty vehicles experienced the highest overall increase in energy use at over 3 percent per year.

Looking forward to 2030, energy use within the commercial transportation segment is expected to increase by an average of 2.3 percent per year. Heavy-duty vehicles will continue to account for approximately 60 percent of total commercial transportation demand, and fuel demand is expected to increase by an average of 2.2 percent per year. Increases in energy efficiency will be partially responsible for bringing this percentage down from the 3 percent increases seen between 1980 and 2005.

Increases in the number of personal vehicles around the world have been key to driving the growth in the personal vehicles sector, where energy use has increased at an average of 2 percent per year since 1980. About one-third of the world's vehicle population is within the United States. As quantities of vehicles continue to increase worldwide, energy efficiency becomes increasingly important.

Average vehicle fuel economy significantly increased in U.S. passenger vehicles in the late 1970s and early 1980s as fuel prices increased and Corporate Average Fuel Economy (CAFE) standards were implemented. Achieved through improvements in conventional engine technologies and the introduction of new technologies including hybrid vehicles, new vehicle fuel efficiency is expected to improve by an average of 2 percent per year until 2030, enough to offset predictions of modest growth in the U.S. vehicle population and eventually reduce personal vehicle fuel demand over time.

As reported in its "Tomorrow's Energy" report, ExxonMobil expects high quality lubricants to contribute to efficiency improvements: "In addition to technology enhancements in vehicle power trains, we believe that technologies such as lighter-weight materials and improved lubricants will play an important role in delivering valuable efficiency improvements to the transportation sector."

AMSOIL synthetic motor oils, gear lubes and transmission fluids effectively improve vehicle fuel efficiency through reduced friction, superior thermal and oxidative stability and resistance to volatility. Industry tests demonstrate an average conservative 2 to 5 percent increase in fuel economy by switching to synthetic lubricants, while many AMSOIL customers report even larger gains.

