## Climate Change Emissions and Stabilization

## Estimate of Ford's Climate Change Emissions

$\mathrm{CO}_{2}$ in million metric tonnes (MMT)


New vehicles are new vehicles sold in the reference calendar year.
Vehicles on the road represents Ford vehicles sold prior to the reference calendar year.
The increase of $\mathrm{CO}_{2}$ from vehicles is primarily due to additional vehicles on the road and vehicle miles traveled (VMT).
In 2001, we estimated the greenhouse gas emissions (GHG) from our operations and products as part of an assessment of the impact of the climate change issue on our Company. To obtain an updated snapshot, we estimated $\mathrm{CO}_{2}{ }^{1}$ emissions for this report and found that:

- Emissions from our facilities improved by approximately 17 percent during this period. This reflects an approximately 7 percent improvement in the amount of $\mathrm{CO}_{2}$ emitted per vehicle produced, largely due to more efficient use of energy: our energy efficiency index improved globally by about 13 percent from 2000 to 2005. It also reflects lower overall vehicle production. These estimates are fairly precise ${ }^{2}$. Facility GHG emissions, however, are a small percentage (about 2 percent) of the total.
- Emissions from current year $\left(2005^{3}\right)$ vehicles on the road increased by about 4 percent, primarily reflecting an increase in assumed vehicle miles traveled globally, partially offset by a decline in vehicle sales. We have moderate confidence in the precision of the estimate for U.S. vehicles; the estimate for the rest of the world is less precise ${ }^{4}$. These emissions account for about 9 percent of the total.
- Emissions from all Ford vehicles on the road are estimated to be about 370 million metric tonnes $\mathrm{CO}_{2}$ per year, perhaps a bit higher than in our previous analysis, due to an increase in the estimated contribution of vehicles to global GHG emissions. This estimate, which accounts for about 90 percent of the total, is highly uncertain ${ }^{5}$.
- The emissions from Ford's facilities and Ford-made vehicles on the road remained relatively stable between 1999 and 2005 at approximately 400 million metric tonnes $\mathrm{CO}_{2}^{5}$. The 2005 value represents a smaller share of global GHG emissions from all sources, which increased significantly during this period: the Intergovernmental Panel on Climate Change estimates that $\mathrm{CO}_{2}$ emissions from fossil fuel use during 2000 to 2005 were approximately 11 percent higher than during the $1990 \mathrm{~s}^{6}$.
- We are offsetting carbon emissions from the manufacture of our hybrid vehicles and offering U.S. customers a means of offsetting the emissions from the use of their vehicles. In the UK, Land Rover is offsetting all manufacturing emissions and the first 45,000 miles worth of emissions from 2007 model year vehicles sold. We view these offsets as an important additional element of our climate change strategy going forward, but they do not yet affect this overall estimate of emissions.

Because many assumptions are required to generate this figure, and we do not control all of the factors that influence its magnitude, we do not expect to use this estimate as an ongoing performance measure. We intend to continue to reduce our facility GHG emissions, improve the energy efficiency of our operations and the vehicles we sell, and closely track those results.
$1 \mathrm{CO}_{2}$ emissions account for substantially all of the GHG emissions from our facilities and vehicles.
2 Calculated consistent with the World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol; include direct (Scope 1) and indirect (Scope 2) emissions.

3 Most recent year for which complete data is available.

4 Calculated using Ford U.S. Corporate Average Fuel Economy and global market share figures. This estimate is subject to considerable uncertainty as it incorporates multiple assumptions about how consumers use their vehicles (e.g., miles traveled overall and urban-highway breakdown) and about fuel economy values in markets outside of the United States.

5 Calculated based on our market share and Intergovernmental Panel on Climate Change figures for the contribution of road vehicles to anthropogenic (human-caused) GHG emissions. This estimate is subject to considerable uncertainty, as it is based on multiple assumptions, including that all automakers' fleets have the same fuel economy and vehicle life span.

6 Intergovernmental Panel on Climate Change "Climate Change 2007: The Physical Science Basis, Summary for Policymakers," February 2007.

