GLOBAL FUEL ECONOMY INITIATIVE ROUNDTABLE SUMMARY

Creating the Conditions for Innovation to meet 50by50 Targets

Thursday 27 May 2010

The Global Fuel Economy Initiative (GFEI) presented a side event on "Creating the Conditions for Innovation to meet GFEI Targets", chaired by **Lew Fulton**, Transport Energy Specialist at the International Energy Agency (IEA). The GFEI sets a target of improving the average fuel economy (measured in liter/100km) for the global light-duty vehicle fleet by at least 50% from projected 2050 levels. This programme has come to be known as "50by50". The target implies that new light-duty vehicles reach at least a 50% improvement of fuel economy by 2030.

Formed by the FIA Foundation, the IEA, the International Transport Forum and the United Nations Environment Programme (UNEP), GFEI met in Leipzig to discuss the measures needed to meet the targets set. The focus of the panel - which included **George Eads**, Executive Director of GFE 2010, **K. G. Duleep**, Managing Director at ICF International, **Henry Li**, Senior Director at BYD Auto Company, China, **Steven Plotkin**, Analyst at the Argonne National Laboratory, USA, and **Mitsuhiko Yamashita**, Executive Vice President of Nissan, Japan - was the particular importance of standards for the longer term to create stable planning conditions for investment in fuel economy. It also examined how appropriate to non-OECD countries the GFEI targets are.

In presenting the early findings of the GFEI Annual Report, **George Eads** emphasised that technologically, the potential to achieve a 50% improvement in new vehicles by 2030 compared to 2005 appears to be there, at least for the US and Europe. Nevertheless, it will be quite challenging to reach the GFEI target since - at least in some regions - efficiency gains have been largely used to increase vehicle performance and comfort rather than improve fuel economy.

The Role of Eco-Driving

Subsequent presentations highlighted the reason for differences in fuel economy across the globe. Most of the difference between the US and other countries are explained by sales differences, i.e. shares of different market segments. Most of the difference between France, China and India, however, appears to be due to technology differences. One key point highlighted throughout the discussions was the need to account for actual on-road fuel

economy, not just tested efficiency. How consumers use and drive vehicles must be accounted for with many participants. The role of eco-driving in contributing to on-road efficiency gains was emphasised.

The balance between the roles of electric vehicles and internal combustion engine vehicles (ICEs) was also discussed a length. Opinions were split on whether a large shift to electric drive vehicles by 2020 can be expected or not and whether there is a role for more efficient conventional vehicles including hybrids and other strategies. In this context, the GFEI Roundtable was cautioned that future reference ICEs will be much more efficient than today's and that achieving marginal fuel economy gains over these with alternative technologies will be much more expensive and technically challenging. By 2030, internal combustion engines will still represent good value for money in fuel economy performance.

"Attribute Creep"

While much can be expected from fuel economy gains due to improvements in engine technology, the role of that non-drivetrain systems and accessories will play in achieving GFEI targets is equally important. This is especially true since ICEs optimised for fuel economy are vulnerable to fuel economy performance degradation due to power draw from accessories and non-drivetrain systems.

Generally, there has been a tendency to use efficiency gains to benefit non-fuel economy related vehicle attributes. Authorities need to be very careful about designing a regulatory and fiscal environment that limits such "attribute creep". Here, long-term, predictable and coherent standards aligned with fiscal instruments can reduce uncertainty from both manufacturers and households about future requirements for fuel economy. This will be important in order to allow manufacturers to make what otherwise might be risky investments against a backdrop of volatile, and generally rising, oil prices.