

## **Progress of work of the EFV Task Force Group and recommended way ahead to the World Forum**

### **Introduction**

Climate change, air quality, traffic noise and energy security are major concerns around the world. These policy concerns are directly related to health, welfare and energy security and are, therefore, important to a wide array of stakeholders including government officials, industry, the research community and consumers. The government of Japan organized the first ministerial conference in 2003 focused on environmentally friendly vehicles (EFV) in an effort to gather officials from around the world to discuss the potential and role of government in advancing vehicle technologies to address the environmental and energy impacts of transportation. At that first meeting, it was recognized that it would be vital to continue the discussion and information sharing and establish ongoing cooperation between future EFV conferences and World Forum for Harmonization of Vehicle Regulations (WP.29). It was established that the goal of organizing biennial International EFV Conferences would be to share ideas and experiences with regard to ongoing measures for promoting & introducing environmentally friendly vehicles, developing the legal and economic framework for the introduction of such vehicles and advances in technology innovation to address future directions for both energy security and cleaner environment.

The second EFV conference was held in Birmingham in 2005. The third conference was held at Dresden in 2007. The conference attendees agreed that any efforts to reduce CO<sub>2</sub> emissions and pollutants from vehicles should be done with a neutral technology approach. The first idea of evaluating EFVs was to consider the potential for developing a globally harmonized method considering the regional differences, and holistic approach for assessing energy efficiency. Following the third conference in Dresden the World Forum agreed to establish the EFV informal group under GRPE to continue fruitful cooperation between WP.29 and EFV conferences in the future.

### **EFV Informal group Activities**

Since the 3<sup>rd</sup> EFV conference in 2007 at Dresden, Germany, a total 9 meetings of EFV informal group have been conducted. The first EFV informal group meeting was held in January, 2008 and since then total 63 documents have been prepared and discussed in detail during these meetings. Various documents prepared by the stakeholder include number of aspects related to EFV, particularly on feasibility statement, possible approach to a concept of EFV, score card approach, methodology to evaluate EFV, future alternative fuels and power trains, evaluation of hybrid vehicles etc. The informal group prepared informal document GRPE-58-02 and 03 which provided valuable background information and concepts for consideration in the feasibility statement for the development of a methodology to evaluate environmentally friendly vehicles which has served as a foundation for the continuing dialogue.

After the 4<sup>th</sup> EFV conference in 2009 at Delhi, India, the EFV informal group started consideration of identifying parameters that may serve as the possible candidates for developing an EFV concept for a uniformed assessment tool. The parameters that were identified were CO<sub>2</sub>/GHG emissions, regulated pollutants, noise, recyclability and fuel quality. The focus was on tank-to-wheel emissions and not on well-to-wheel emissions as it was concluded that an approach that considered well-to-tank emissions has many different variables that would affect such assessment

options depending upon the way the fuel is produced, transported and stored. In addition, GRB was requested to get involved to develop the document on noise. In the 7<sup>th</sup> informal group meeting held in June, 2010, India has submitted 4 documents on the parameters of noise, recyclability, regulated pollutants and CO<sub>2</sub> emissions. After detailed discussion and considering the views of the informal group members, India has submitted 6 documents discussing labeling and GHG emissions. Other stakeholders including industry represented by OICA have submitted their comments through various documents in these informal group meetings.

## **Status Report**

The participants discussed the documents submitted in various meetings in great detail. It was also realized that there are several issues which make it difficult and potentially of limited usefulness to develop a universal assessment tool for the EFV concept. There are four major reasons affecting the ability of the informal group to develop a harmonized assessment tool.

There is huge diversification for the types of vehicles in different markets of developed and developing countries. Prevalent emission and safety norms existing in different countries vary widely. There is no single worldwide harmonized testing cycle though efforts are now underway in GRPE through the work of the WLTP informal group. Hence, developing a single EFV assessment concept to address these significant differences has proved difficult.

In addition, due to different market situations and consumer needs/interests, the development of a harmonized assessment concept for use by regulators or consumers such as a single labeling concept under the framework of UNECE has proven to be not feasible.

Thirdly, environmental needs are different, region-wise and country wise. For example, for some countries regulatory pollutants are top priority which may not be for others. The weighting factor to be given to different parameters like regulated pollutants, CO<sub>2</sub> emissions, noise, etc. will again be totally dependent on regional conditions and not possible to arrive at unified weightage factor to be applied for EFV vehicles. Parameters like recyclability principally depend on infrastructure available in a particular region. Also, when examining potential parameters, one has to consider existing regulatory requirements, such as for recyclability, which needs to comply with ELV directives in Europe (2000/53/EC).

Finally, the need to deal with different environmental parameters and then by determining regional weighting, it maybe possible to develop a single score concept, but they would not be consistent worldwide. The automotive industry (OICA) raised concerns about a single score approach, basically because of the above mentioned difficulties and reasons.

In view of the complexity and diverse issues faced by the informal group to develop an EFV assessment methodology, it was thought appropriate to form a Task Force group to deliberate on the future of the EFV informal group and arrive at recommendations for WP.29. Accordingly first meeting of the Task Force was held on 22<sup>nd</sup> June 2011 at Geneva.

## **Proposal to WP.29 by the Task Force Group**

EFV informal group during last 9 meetings has discussed various aspects related to EFV concept and methodology of assessment, however, they found it difficult to formulate the EFV document as discussed above. Therefore it is proposed to withdraw the original plan to develop an evaluation concept of EFV's, mainly because of:

- differing market situations and consumer needs,
- varying environmental needs (region wise),
- several environmental parameters, but single score aversion,
- Measures to promote alternative fuels and innovative propulsion systems for market introduction are in place in many parts of the world.

It is suggested that the following steps are considered and agreed by WP.29

- Confirmation of the above mentioned conclusion regarding the difficulty in developing a universal tool for assessing EFVs .
  - While a single assessment tool seems unmanageable, WP.29 could potentially develop a trends or progress report to show the promising advancements that have been made in technology innovation and EFV implementation since the first EFV conference in 2003. The rate of progress over the last eight years is stunning and such a report would reflect the progress being made by automakers and the impact government policies in many countries have had on bringing EFVs to market and into communities across the world.. This document could form a reference to explore the potential for forming future regulations. It is recommended that it should be attempted to conclude this document for the 5<sup>th</sup> Conference to be held in the United States.
  - One consideration of a more immediate nature would be to consider the need to develop uniform, well-conceived definitions for the new technology vehicles such as different stages of hybrid, electric, hydrogen or other gas powered or dual fuel vehicles, which are being introduced in the market. If common definitions could be evolved, it would facilitate compilation of global production and sales data as well as assist countries in evolving suitable policies for development of EFVs. It is suggested that this task can be taken up under WP.29 involving different GR Groups.
  - If WP.29 agrees with the above, the last recommendation is to freeze the activities of the EFV informal group related to the approach of pursuing the single score assessment. As a conclusion, it is recommended that over the next months leading up to the International EFV conference in the USA in 2012, the EFV Task Force Group concentrate on developing a "Trends and Progress Report to show the promising advancements", as mentioned above. "
  - Progress of the activities of the TFG to be presented to WP29 in March 2012 and June 2012 sessions. Also, for developing the "Trends and Progress Report", TFG will draw the benefit of expertise of GRPE members suitably in their January and June 2012 sessions
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