## REPORT ON GFV HEAVY DUTY DUAL-FUEL RETROFIT WORKSHOP

13 December 2012 Brussels André Rijnders Chairman Informal Group GFV

#### **PURPOSE OF THE WORKSHOP**

The workshop was organized to gather information from various government and private industry stakeholders to learn more about the current approaches dealing with heavy duty dual-fuel (gaseous) retrofit technology and what might be the way forward.

### **20 STAKEHOLDERS PARTICIPATED**

- Member states (contracting parties)
- Dual-fuel and retrofit system suppliers for natural gas and LPG
- OEM represented by ACEA/OICA
- NGOs

## **Three distinct sessions**

- State of dual fuel retrofit technology and their perspectives on future possible regulations as told by the OEMs and retrofit system suppliers (3 suppliers & ACEA/OICA)
- Current national-level regulatory (or lack thereof) approaches described (Germany, Netherlands, UK, Italy, U.S.A., Sweden)
- Regulatory options/strategies identified and discussed (pros & cons)

#### *Key Issue* International Regulatory Approach is Essential

- In the absence of international standards or regulations current state-of-play based on national approaches.
- Most countries have no certification criteria, procedures or rules.
- Some countries are highly restrictive (D-F not allowed); some are flexible, others provide exemptions (i.e. also in conjunction with a test program)
- Conclusion: Existing situation is not favorable to facilitate the heavy duty D-F market.

#### Key Issue

# What regulatory approach for D-F retrofits is most appropriate?

- Three possible regulatory approaches
  - REC (retrofit emissions control devices)
  - Regulation 115 (expanding to HDVs would be timeconsuming)
  - Completely new regulation (new structure; not limited to gas)
- Support among retrofit system manufacturers to amend R.115
- OEMs prefer developing a completely new regulation; can align with R.49/R.83 but administratively complex

#### Key Issue

Some concerns about competitive advantages between OEMs and retrofit system suppliers

- OEMs see competition from aftermarket retrofit manufacturers for LDVs approving vehicles to R.115 is an on-going issue.
- The same concern surfaces about HDV dualfuel retrofits (also related to an R.115 approach).
- One idea is to introduce a 'waiting time' after the certificate of conformity is issued prior to conversion (somewhat like the US approach to conversions)

## CONCLUSIONS

- There is a need for an international regulation for dual-fuel retrofit systems.
- Ensure retrofit systems are fully compliant with environmental regulations.
- The regulation needs to be comprehensive, flexible but not impede developing technologies.
- There are several possible regulatory pathways all of which have pros and cons.
- Further discussion/consensus is needed to determine which one is 'the best' (or 'most preferred').