CO$_2$-reduction in transport

In the Netherlands

Henk Wardenaar (coordinator climate affairs), Paris, 2007 May 21-22
I. EU and national objectives

EU 2020
• > 20 % reduction CO2, compared to 1990
• 20 % reduction in energy consumption
• 20 % renewable energy

NL 2020
• 30 % reduction greenhouse gases (incl. CO2), compared to 1990
• 2 % reduction in energy consumption annually
• 20 % renewable energy
European and national instruments

**EU**
- Regulation
- Norms (targets) for
  - Gaseous emissions
  - Noise emissions
- Emission trading scheme
- Research, technology development and demonstration
  - FP7
  - CIP
- Level playing field
- Private sector investments?

**NL**
- Implementation of European regulation
- National legislation
- Taxation (BPM, EIA, MIA)
- Implementation of emission trading scheme
- Research programmes
- Innovation programmes
  - Automotive
  - Maritime
  - Etc.
- Monitoring, control and sanctions
- Private sector investments?
II. Scenario’s for NL (Mton CO2)

- European and national overall objectives are clear.
- Implications for traffic and transport under debate
- Mitigation CO2 by traffic and transport
  - 1990-2000 growing (30-37)
  - 2000-2010 slowing down (37-39)
  - 2010-2020: scenarios
    1: BAU: 39-49 (economic growth)
    2: stabilization 2010: 39
    3: reduction below 1990: 29
    4: -30% from 1990: 21
increasing energy efficiency

NL – transition programme

Innovation programme (holistic approach)
“Roads to the future”:
• Smart driver behaviour
• Smart car (ITS and car2car communication)
• Smart infrastructure and services (collaborative systems in traffic management)

Legislation on biofuels and Innovation programme
• Smart (bio-)fuels
III. CO$_2$ reductions in the transport sector in 2010

- Km charge: 2 Mton
- Speed limits: 0.3 Mton
- Fiscal measures: 0.3 Mton
- First NL ecodriving program: 0.9 Mton
- Biofuels: 2 Mton
  - 2% in 2007 $\rightarrow$ 5.75% in 2010
  - Innovative biofuels (subsidy programma $\rightarrow$ € 12mln; 10% better CO$_2$-reduction compared to fossil fuels)
- Hybrid vehicles: 0.2 Mton
## Fiscal measures

### Purchase-tax depending on CO₂-reduction

<table>
<thead>
<tr>
<th>Energielabel</th>
<th>Hybrid vehicle</th>
<th>Non-hybrid vehicle</th>
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<tbody>
<tr>
<td>A</td>
<td>- € 6.000</td>
<td>- € 1.000</td>
</tr>
<tr>
<td>B</td>
<td>- € 3.000</td>
<td>- € 500</td>
</tr>
<tr>
<td>C</td>
<td>€ 0</td>
<td>€ 0</td>
</tr>
<tr>
<td>D</td>
<td>+ € 135</td>
<td>+ € 135</td>
</tr>
<tr>
<td>E</td>
<td>+ € 270</td>
<td>+ € 270</td>
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<tr>
<td>F</td>
<td>+ € 405</td>
<td>+ € 405</td>
</tr>
<tr>
<td>G</td>
<td>+ € 540</td>
<td>+ € 540</td>
</tr>
</tbody>
</table>

* A = most fuel-efficient,
* G = less fuel-efficient, compared to vehicles with about the same size
NL eco driving program

• Programme to positively influence attitude and behaviour of car users and fleet owners: to drive more calm and comfortable
• Profit: lower costs (and less CO$_2$-reduction) and more traffic safety
• Co-operation in a platform with more than 30 consumer and retail organisations (AA, Shell, BP, fleetowners etc.)
Driving style recommendations 2

- When you have to slow down or to stop, decelerate smoothly by releasing the accelerator in time, leaving the car in gear
- Monthly control of the tension of the tyres
- Usage of the in-car apparatus: revolution counter, onboard computer, cruise control
Results of the three eco driving programs

• First programma: budget € 11.5 M
  • 2004: 0.2 Mton CO$_2$ reduction

• Second programma: budget € 10 M
  • 2005: 0.5 Mton CO$_2$ reduction

• Third programma: budget: € 15.5 M
  • 2005: 0.6 Mton CO$_2$ reduction

• Target (all 3 programmes):
  ➢1.5 Mton CO$_2$ reduction in 2010
Driving style recommendations

• Shift up as soon as possible: 2000 – 2500 revolutions/minute
• Maintain a steady speed, using the highest gear possible
• Look ahead as far as possible and anticipate to surrounding traffic