Current and Future Trends of the South African Car Parc

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Factors affecting the Car Parc and Energy Demands

- Number of vehicles
- Age of vehicles
- Type of vehicles
- Energy consumption

Model developed:

- Kept simple (lots of assumptions based on historic data and extrapolated) and lessons learned from 2006 study
- Analysed world trends and selected scenarios for South Africa
- Assumptions made and variables can be changed as real information becomes available
Car Parc Size and Growth

NaTIS register:
8,2 mil vehicles end 2011

17,1 mil vehicles
Time Horizon 2030
Factors affecting Growth

1. New Vehicle Sales
2. Attrition

- Economic Climate
- Alternative Transport
- Price
- Technology
- Infrastructure

Vehicle Sales (7.5% growth)
Factors affecting Growth (continued)

1. New Vehicle Sales

2. **Attrition**
   - Scrapping of Vehicles
   - Accidents
     - Uneconomic to repair
     - De-registered

Old vehicles parc decline faster than new vehicles and certain assumptions are based on historical data for attrition rate.

- Impending Periodic Road-worthy Testing will impact on vehicles being phased out.

- Stricter Rules on repair quality after accidents and higher % vehicles being insured may have an effect on vehicle attrition
Types of Vehicles

Broad Categories:

- **Passenger Cars (PC)**
  - Car parc: Petrol Currently 90%, decrease to 78% in 2030
  - New sales: 85% Petrol currently, decrease to 75% in 2030

- **Light Commercial Vehicles (LCV)**
  - Car Parc: Petrol currently 56%, decrease to 52% in 2030
  - New sales: 60% Petrol currently, decrease to 50% in 2030

- **Heavy Commercial Vehicles (HCV)**
  - Car parc: 95% Diesel, becoming 99% diesel in 2030 with almost 100% sales being diesel

Not included are non-road going vehicles, agricultural and mining
Developments on Fuel Economy

- Great pressure to develop more fuel efficient vehicles
  - Huge improvements are achieved and will continue
  - Leads to: Enormous demand for cleaner fuels

Fuel Economy per Category
Alternative Fuels

Electric Vehicles
• Busy adding Electric Vehicle Safety Legislation to Compulsory Specification
• Slow take off expected because of “Range Anxiety”
• Expect real take-off from 2020 onwards – after Asian and European take-off

Gas
• LP Gas and CNG as aftermarket Fitment only for time being

Bio-Fuels
• Seen as added blend to Fossil Fuel
• No real Emission Advantages expected
• Currently more expensive than fossil fuels
• NAAMSA specified 5% max Diesel blend and 10% max Bio-Ethanol blend, provided the bio-fuels comply with EN Specs
Factors affecting Fuel Consumption

- Engine Technology
  - Driver style
  - Road congestion
  - Distances travelled – Urban development

Government led Initiatives

- Taxation on CO₂ emissions
- CF2 initiative – Cleaner fuels for EU5 emission standards, PPA Act
- Upgrading of Freeways
- Implementation of ITS (intelligent Transport Systems)
- Upgrading of Public Transport
Conclusion

- Car parc increases
- Congestion grows
- New vehicles in car parc have better fuel economy
- Older vehicles with high consumption get phased out

Main Trends

Bottom Line – Fuel demand increases
Thank You!