China's Fuel Economy Policy

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Overview

- Energy Foundation, China Sustainable Energy Program
- Driving forces
- China's proposed fuel economy standards
- Policy approach
- What's next?

Energy Foundation

- Promote energy efficiency and renewables
- Work in US and China
- Offices in San Francisco and Beijing
- China Sustainable Energy Program—support from Packard and Hewlett Foundations
- Acknowledgements:
  - He Dongquan, Energy Foundation
  - Feng An, Consultant
  - China Automotive Technology and Research Center

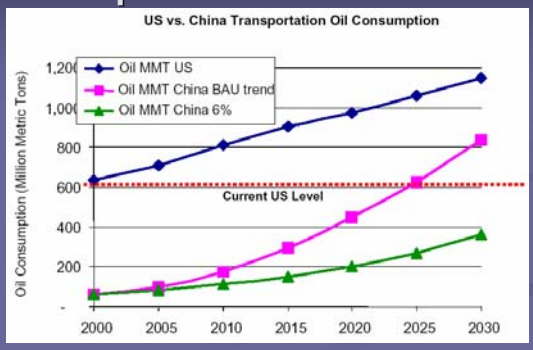
China & US: Snapshot

Auto Sales Exploding

Rapid Growth—Vehicle Sales

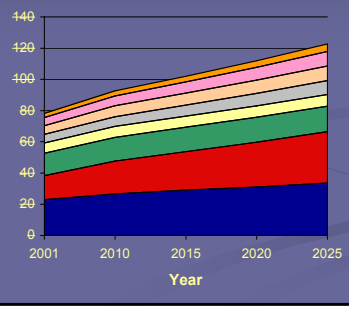
Source: Feng An, Consultant

Rapid Growth—Oil Use



Source: Feng An, Consultant

Future World Oil Use (EIA04)



Today's Fuel Economy

- 10% to 15% poorer than Europe
- 5% to 20% poorer than US
- 20% to 25% poorer than Japan

…for an equivalent vehicle type.

Source: He, et al., *Oil consumption and CO_2 emissions in China's road transport*, forthcoming article in *Energy Policy*

Driving Forces

- Address oil security concerns
- Increase competitiveness of China's auto industry
- Speed industry consolidation
- Encourage technology transfer from foreign partners in JVs

Standard Development

- Feasibility study began in 2001
  - Technical work—CATARC
  - Benefit analysis—Tsinghua & DRC
- Steering cmte of 5 relevant agencies
- Test procedure issued in 2003
- Draft standards approved by Vehicle Standardization Cmte Nov. 4, 2003
- Undergoing WTO review

Steering Committee Meeting

China's Proposal

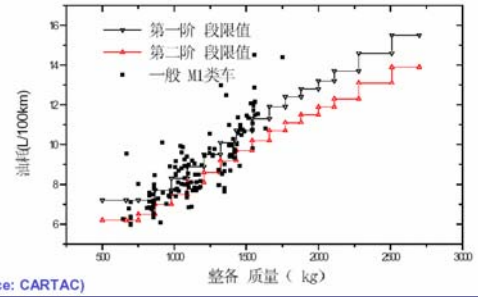
- Sets a maximum fuel consumption level (l/100km) that each vehicle must meet
- Applies to M1 vehicles (EU classification)
- Standards vary with vehicle weight (16 weight classes)
- Phase 1 standards—July 2005—5% to 10% improvement
- Phase 2 standards—Jan 2008—a further 10% improvement

Chinese Cars with Manual Transmission (Black Dots)

limit Fuel Consumption Values in L/100 km

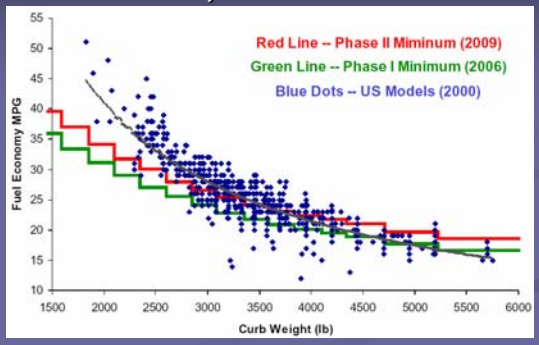
Black line- Phase I, Red line – Phase II

50% fails to meet Phase I, 82% fails to meet Phase II



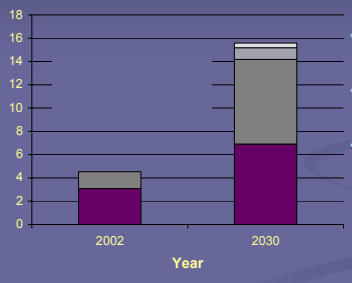
(Source: CARTAC)

US Models, China Standards



Source: Feng An, Consultant

Benefits



- 0.4 mmbd saved in 2030
- 17 MMT reduction in C emissions
- 1.4 mmbd, 60 MMTC saved in 2030 if cars reach EU target of 120 g/km

Why This Policy Approach?

- Government staff surveyed policy approaches in many countries.
- Hoped to apply complementary regulatory and fiscal policies.
- Considered voluntary, mandatory, and hybrid regulatory approaches.
- Chose mandatory standards plus public information.
- Fiscal measures so far slowed by political obstacles.

What's Next?

- Complete WTO review, officially announce standards
- Implementation:
  - Consequences of noncompliance/enforcement
  - Testing and verification
  - Public information
- Policy development
  - Fiscal measures
  - Standards for other vehicle types

Thank You

- www.ef.org
- www.efchina.org