

China's Fuel Economy Policy

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USAEE/IAEE Conference
July 8-10, 2004
Washington, DC

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

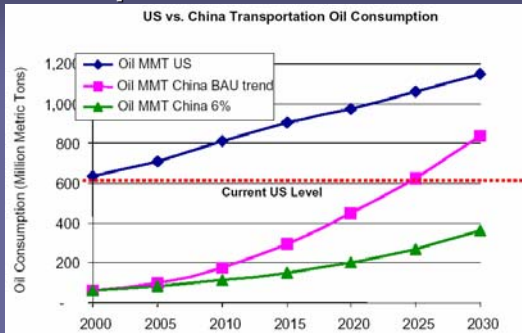


Rapid Growth—Vehicle Sales



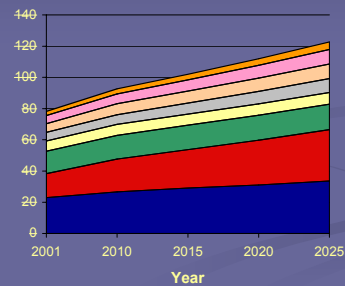
Source: Feng An, Consultant

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 CO₂ 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

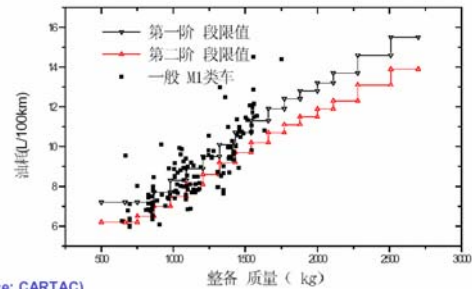
- ◆ Sets a maximum fuel consumption level (l/100km) that each vehicle must meet
- ◆ Applies to M1 vehicles (EU classification)
- ◆ Standards vary with vehicle weight (16 weight classes)
- ◆ Phase 1 standards—July 2005—5% to 10% improvement
- ◆ Phase 2 standards—Jan 2008—a further 10% improvement

Chinese Cars with Manual Transmission (Black Dots)

limit Fuel Consumption Values in L/100 km

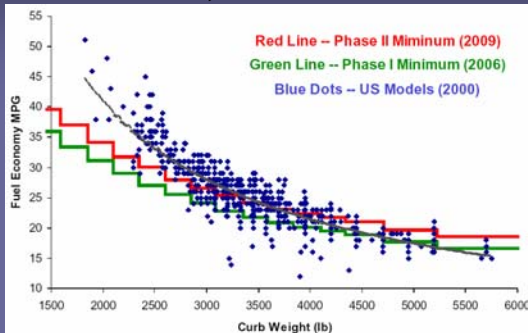
Black line- Phase I, Red line - Phase II

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



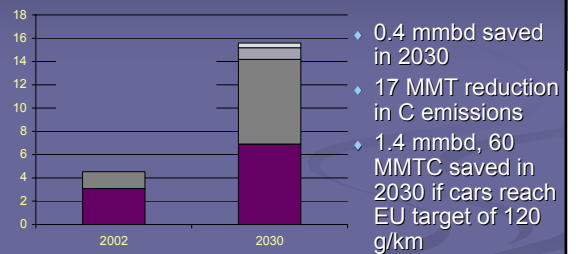
(Source: CARTAC)

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