



Federal Ministry
for Economic Cooperation
and Development



Renewable Energies in the Transport Sector

Hein Winnubst

German Federal Ministry for Economic Cooperation and Development

Energy Week 2009 - Energy and Transport Joint Plenary 1
Technology & Energy Innovations for Clean Transport



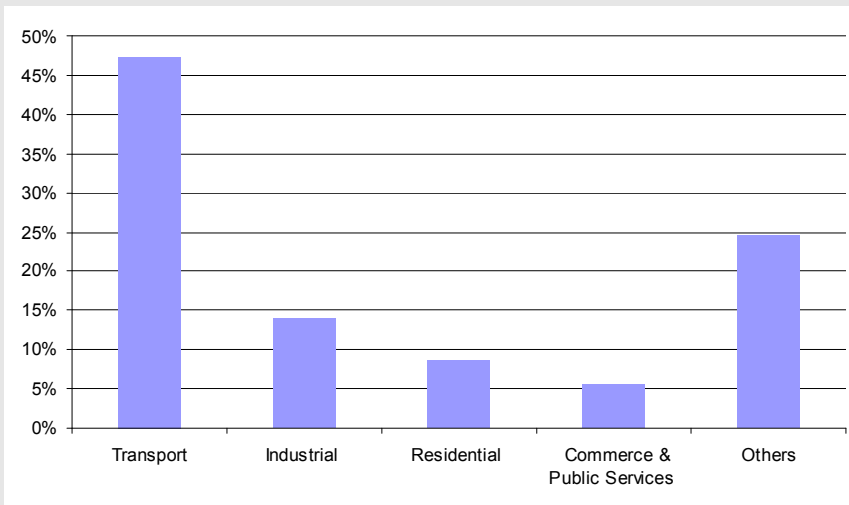
Overview

1. Transport and Renewable Energy
2. The Founding of the International Renewable Energy Agency - IRENA

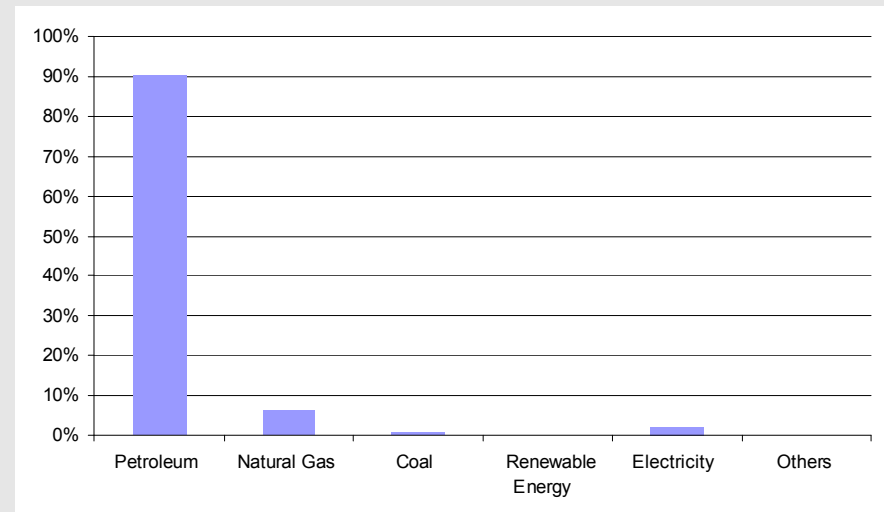


1. Transport

Role of Petroleum in the Transport Sector



Transport takes high share of total petroleum consumption (~ 50 %)



Transport almost entirely dependent on petroleum (~ 90 %)



The three basic routes to improve energy efficiency

REDUCE

Reduce or avoid travel
or the need to travel

- Integration of transport and land-use planning
- Smart logistics concepts

SHIFT

Shift to more environmentally
friendly modes

- Transport Demand Management
- Mode shift to Non-Motorized Transport
- Mode shift to Public Transport

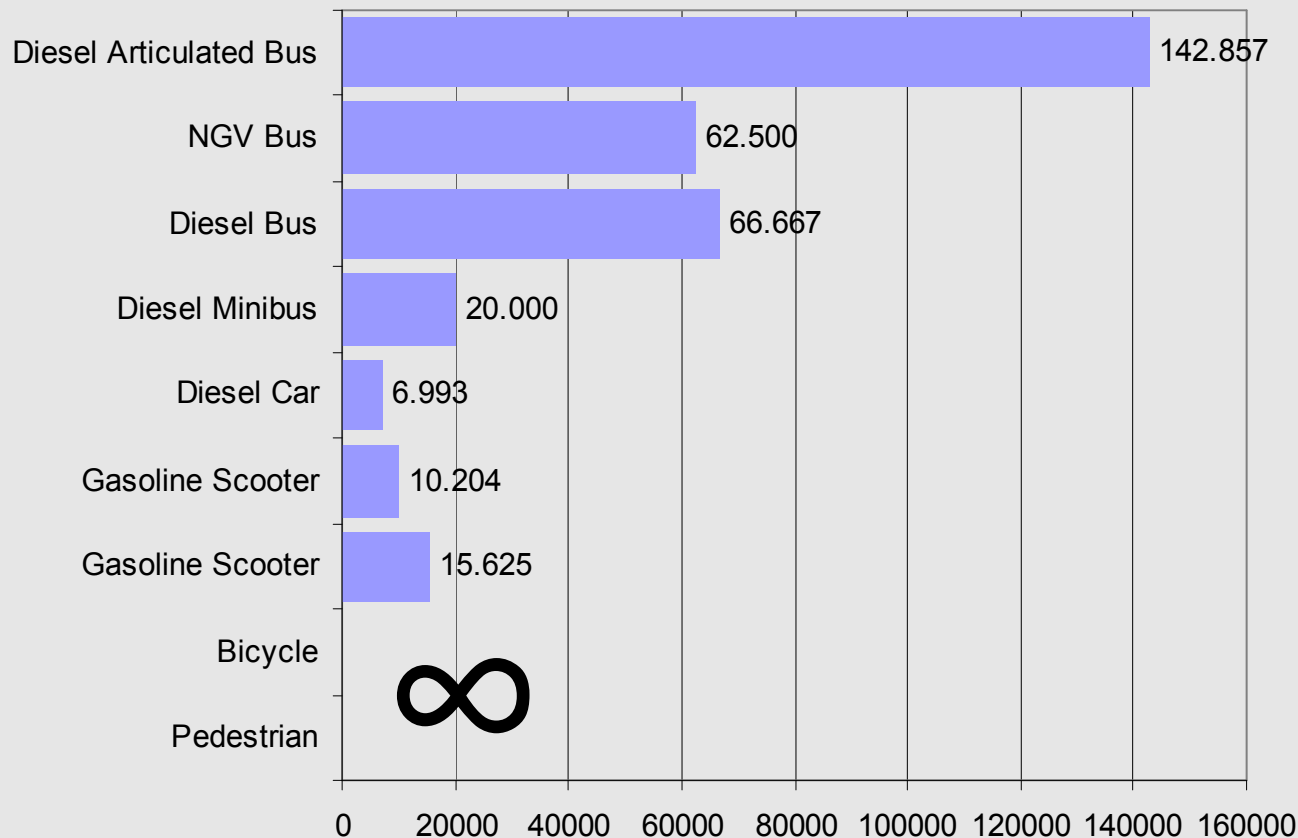
IMPROVE

Improve the energy
efficiency of transport
modes and vehicle
technology

- Low-friction lubricants
- Optimal tire pressure
- Low Rolling Resistance Tires
- Speed limits Eco-Driving (Raising Awareness)
- Shift to alternative fuels, including from renewable sources



How far can I travel on 1 ton CO₂ ?





2. Founding the International Renewable Energy Agency – IRENA

2.1 The Case for IRENA

2.2 Goals and Mission

2.3 Founding Process 2006-2009



2.1 The Case for IRENA

- Urgent global challenges related to energy issues (global warming, unequal distribution of energy sources, rising energy prices)
- Physical potential of RE
- Institutional gap



2.2 Goals and Mission

- Global convening force to obtain international consensus and cooperation for a massive scale up in RE
- Lead global efforts to ensure that RE contributes to attain low carbon future
- Focus on additional needs (IEA: 24% RE by 2030 = additional 1,000 Mtoe/year)



2.3 Founding Process 2006 - 2009

- German Initiative to found IRENA started in 2006, in cooperation with ESP and DNK
- Fast growing worldwide support (climate change, oil price hike)
- IRENA founded by 75 member states in January 2009 in Bonn