Fossil-fuel subsidies are distorting price signals

Economic value of fossil-fuel consumption subsidies by country & type, 2009

Fossil-fuel consumption subsidies amounted to $312 billion in 2009, with oil products accounting for almost half of the total.
Emerging economies dominate the growth in demand for all fuels

Incremental primary energy demand by fuel & region in the New Policies Scenario, 2008-2035

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<tr>
<th>Fuel</th>
<th>OECD</th>
<th>China</th>
<th>Other non-OECD</th>
<th>Other renewable</th>
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<td>Coal</td>
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<td>Other renew</td>
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</tbody>
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Demand for all types of energy increases in non-OECD countries, while demand for coal & oil declines in the OECD
China's role in global energy is set to expand further.

China’s share of the projected net global increase for selected indicators in the New Policies Scenario

Developments in China’s energy system will have major implications for global supply & demand trends for oil, natural gas & coal, as well as prospects for limiting climate change.
Coal remains the backbone of global electricity generation.

Coal-fired electricity generation by region in the New Policies Scenario

A drop in coal-fired generation in the OECD is offset by big increases elsewhere, especially China, where 600 GW of new capacity exceeds the current coal capacity of US, EU & Japan.
Renewables enter the mainstream if there is enough government support.

Annual global support for renewables in the New Policies Scenario

Government support remains the key driver – rising from $57 billion in 2009 to $205 billion in 2035 – but higher fossil-fuel prices & declining investment costs also spur growth.
Global oil production reaches 96 mb/d in 2035 on the back of rising output of natural gas liquids & unconventional oil, as crude oil production plateaus.
Kazakhstan drives an increase in Caspian oil production to 5.2 mb/d by 2035, while Turkmenistan & Azerbaijan push up gas production to over 310 bcm
A fundamental shift in transport technology is needed

Sales of electric & plug-in hybrid vehicles in the 450 Scenario & CO₂ intensity in the power sector by scenario

Advanced vehicles, which represent 70% of new car sales by 2035, make a big contribution to emissions abatement, underpinned by a dramatic decarbonisation of the power sector.
Climate policies can drive an early peak in oil demand.

Change in oil demand by region in the 450 Scenario compared with 2008.

*Oil demand peaks at 88 mb/d before 2020 & falls to 81 mb/d in 2035, with a plunge in OECD demand more than offsetting continuing growth in non-OECD demand.*

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