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## Energy Subsidies: Getting the Prices Right

- The IEA has undertaken an extensive survey to identify countries that offer subsidies that reduce prices of fossil fuels below levels that would prevail in an undistorted market, thus leading to higher levels of consumption than would occur in their absence. The survey identified 37 countries and it is estimated that these represent over 95% of global subsidized fossil-fuel consumption, with the remaining subsidized consumption occurring in countries for which reliable energy consumption and price data is not available.
- The IEA analysis has revealed that fossil fuel consumption subsidies amounted to \$557 bn in 2008. This represents a big increase from \$342 bn in 2007. Fluctuations in world prices, domestic pricing policy changes, and shifts in demand can all be responsible for year-to-year differences in subsidy estimates. Since 2008, a number of countries – including China, Russia, India and Indonesia – have made notable reforms to bring their domestic energy prices in line with world prices. These efforts are expected to contribute to a reduction in the cost of energy subsidies to these countries in 2009.
- The country with the highest subsidies in 2008 was Iran at \$101 billion, or around a third of the country's annual central budget. Chronic under-pricing of domestic energy in Iran has resulted in enormous subsidies and a major burden on the economy that is forcing reliance on imports of refined products. Iran's leadership came to agreement in 2010 on a sweeping plan for energy subsidy reform; however, steep economic, political and social hurdles will need to be overcome if Iran is to realize lasting reform.
- The IEA analysis highlights that the price signal from subsidy phase-out would provide an incentive to use energy more efficiently, and trigger switching from fossil fuels to other fuels that emit less GHGs. Compared with a baseline in which subsidy rates remain unchanged, IEA modelling indicates that phase out between 2011 and 2020 would:
  - Cut primary global energy demand by 5.8% by 2020. This is equivalent to the current energy consumption of Japan, Korea, Australia and New Zealand combined.
  - Cut global oil demand by 6.5 mb/d in 2020, predominately in transport sector. This is around one third of current US oil demand.
  - Reduce CO<sub>2</sub> emissions by 6.9% by 2020 – or 2.4 GT of CO<sub>2</sub>. This is equivalent to the current emissions of France, Germany, Italy, Spain, and the UK combined.
- Implementing the Copenhagen Accord and the phasing out subsidies are complementary steps towards achieving the 450 Scenario, although the savings are not strictly cumulative:
  - The Copenhagen Accord pledges – if fully implemented – would reduce emissions by around 70% of what is needed to be on track to meet the 20C target by 2020
  - The G20 subsidy commitment – if fully implemented – would reduce emissions by more than 30% of what is needed to be on track to meet the 20C target by 2020
- Policies to phase-out subsidies for kerosene, LPG and electricity must be carefully designed not to restrict access to essential energy services as these fuels often support the basic needs of the poor and can be more easily targeted than subsidies on other energy forms. IEA analysis indicates that today 1.5 billion people around the world are still denied access to electricity and around 2.5 billion people rely on

traditional biomass as their primary source of energy. However, subsidies to kerosene, LPG and electricity in countries with low levels of modern energy access (ie. electrification rates under 95% or modern fuels access under 85%), represented just 11% of the \$557 bn of consumption subsidies in 2008. Furthermore, studies have shown that most existing subsidy programs for these fuels could be made more cost-effective through better targeting.

- The World Energy Outlook 2010 – to be published on 9 November – will include a special focus on energy subsidies, building on the findings outlined above. This analysis also forms part of a Joint Report prepared by the IEA, OECD, World Bank and OPEC that will be considered at the G20 Leaders' Summit in in Ontario from June 25-27, 2010.
- The G-20 has highlighted that increasing the availability and transparency of energy subsidy data is an essential step in building momentum for global fossil fuel subsidy reform. As a contribution to the process, the IEA will be establishing an online database to allow the public to access data on fossil-fuel subsidies, including breakdowns by country, by fuel, and by year. Further details are available <http://www.worldenergyoutlook.org/subsidies.asp>