13th Northeast Asia Economic Forum

ISSUES and OPPORTUNITIES for the NORTHEAST ASIA ENERGY COMMUNITY

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**Fuel Share in Energy Investment Requirements 2001-2030**

*Electricity sector dominates investment in most regions, but oil and gas absorb the lion’s share in Russia and Middle East*
Three Equal Pillars

Environment  Economic Efficiency  Energy Security

Prophets of Doom

• “Out of Gas: the End of the Age of Oil”

• “The End of Oil: the Decline of the Petroleum Economy and the Rise of a New Energy Order”

• “Hubbert’s Peak: the Impending World Energy Shortage”
New Sense of Vulnerability

(Daily Dated Brent Vs OPEC Targets)
Gas grows fastest in absolute terms & non-hydro renewables fastest in % terms, but oil remains the dominant fuel in 2030.
Fossil fuels account for more than 90% of the increase in energy demand in 2000-2030 – a bigger share than in the past

Non-conventional oil emerges as a major new source
Regional Shares in World Primary Energy Demand

62% of the increase in world demand between 2000 and 2030 comes from developing countries, especially in Asia.

Increase in World Primary Energy Production

Almost all the increase in production occurs outside the OECD, up from 60% in 1971-2000.
Share of Trade in World Fossil-Fuel Production

Energy trade between regions more than doubles between now and 2030, most of it in the form of oil.

Oil-Import Dependence

Asia sees the biggest jump in import dependence, while OECD imports also continue to rise, especially in Europe.
Increasing Emphasis on Security

Figure 3: World Natural Gas Demand By Sector

Most of the projected increase in gas demand comes from the power sector, while GTL plants emerge as a new outlet.
**Natural Gas Production By Region**

The Middle East sees the biggest jump in production, but the transition economies remain the largest producing region.

**China: Natural Gas Supply**

Gas demand, increasingly met by imports, jumps from 32 bcm in 2000 to 162 bcm in 2030.
Net oil imports surge from 1.7mb/d in 2001 to 9.8mb/d in 2030
IEA Oil Stocks Exceed 3 Billion Barrels

Dialogue