

Leading on Energy Efficiency

Melanie Slade Energy Efficiency in Emerging Economies 3rd December 2015

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Growing energy demand

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Primary Energy Demand, 2035 (Mtoe)

97% of the projected growth in energy demand between now and 2035 happens outside the OECD

Energy efficiency potential by sector

- Unrealised energy efficiency potential
- Realised energy efficiency potential

Two-thirds of the economic potential to improve energy efficiency remains untapped in the period to 2035

Typical energy efficiency measures

- Minimum energy performance standards for appliances, lighting, industrial equipment, vehicles and buildings
- Energy management systems and public disclosure requirements for all large energy users
- Information and incentives for improving energy efficiency in all sectors

At scale, effectively, everywhere

Energy-intensive economies

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GDP intensity of total primary energy demand in selected economies

Energy efficiency can reduce energy intensity in emerging economies by between 7% and 21% in 2030

India Vision

Value added in manufacturing in the Indian Vision Case compared with the New Policies Scenario

Note: NPS=New Policies Scenario; IVC=Indian Vision Case; PPP = purchasing power parity.

\$1 of GDP from manufacturing requires 10 times more energy than \$1 of GDP from the services sector Power Generation Investment: \$2.8 trillion \rightarrow \$2.8 trillion Energy Efficiency Investment: \$0.8 trillion \rightarrow \$1.5 trillion

Efficient South Africa

The diffusion of more energy-efficient equipment, such as appliances and electric motors, reduces the need for additional generation capacity by 18% in 2030

But how do we make this happen?

The Multiple Benefits of Energy Efficiency

Energy Efficiency lowers fuel import costs

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Import costs of fossil fuels to Thailand

*MEPS = minimum energy performance standards.

Household average electricity consumption of selected equipment in Ghana with and without energy efficiency standards

Energy efficiency results in sustainable development

India to grow it's economy to China's levels but with 6 billion fewer tonnes of CO2 emissions and China to more than double its GDP with no increase in CO2 emissions

Note: PPP = purchasing power parity.