



renewable  
energy  
& energy  
efficiency  
partnership



## World Forum on Energy Regulation IV Track B, Session 8

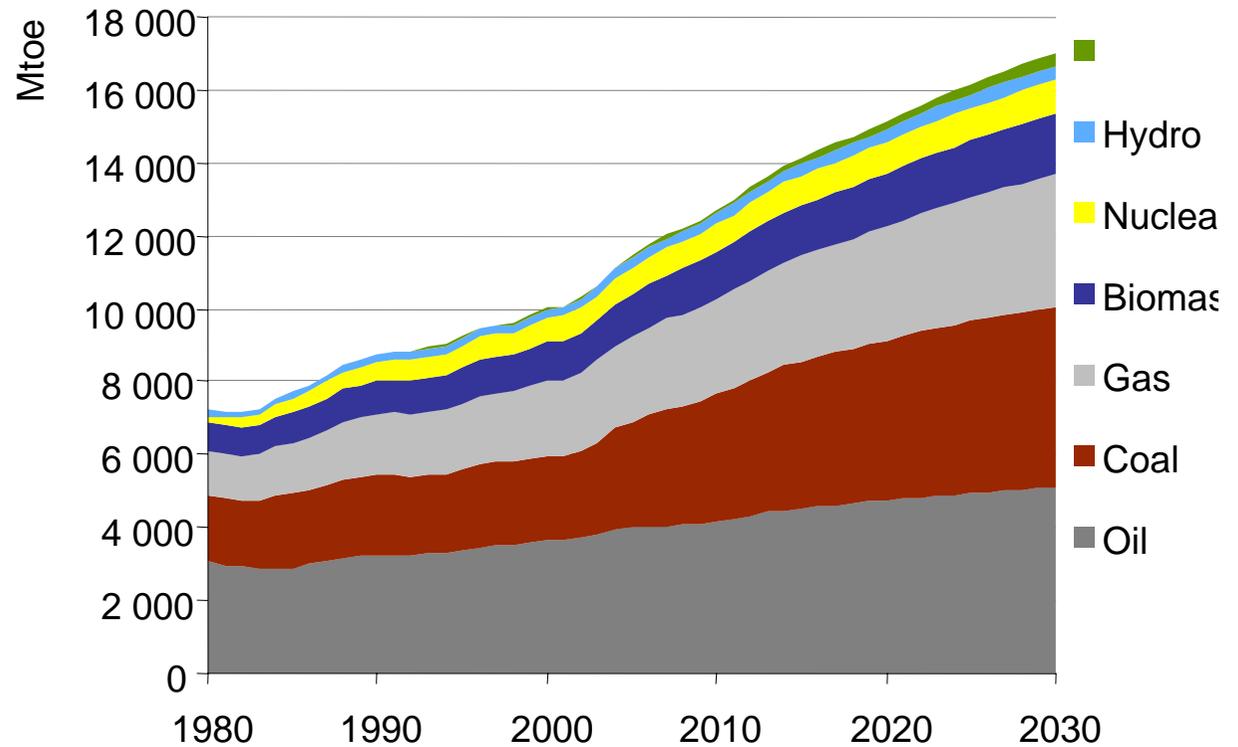
Athens 20<sup>th</sup> October 2009

**Renewable Energy Regulation in Developing Countries: A Key  
Factor in Transition to a Low Carbon Energy System**

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Deputy Director General, REEEP**

# Developing Countries and Energy Regulation

- World Energy Demand increases 45% between 2006 and 2030;
- Annual average increase of 1.6%;
- 87% of the increase in developing countries;
- 75% of over 600 GW of power capacity by 2015 in developing countries.
- Energy CO<sub>2</sub> emissions rise by 45%;

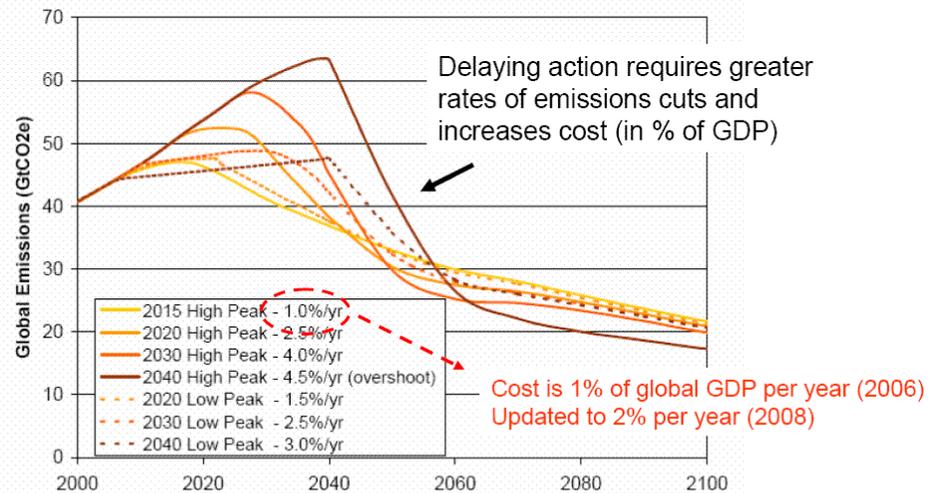


(Source: OECD/IEA)

# Energy and Climate Change

## The Stern Review

The cost of doing something...  
Begin with the assumption that we want to get to 550 ppm CO<sub>2</sub>



Conclusion, 1-2 % of GDP is doable...

- Atmospheric GHG concentration of 1000 ppm and 6°C temp rise;
- 450 ppm and 550 ppm scenarios;
- 550 ppm scenario – 3°C temperature rise – 1-2% of GDP – act now!
- Energy sector 61% of global GHG emissions;
- Low Carbon Energy Transition must happen now!
- Renewable Energy and Energy Efficiency can make significant impacts.

# Challenges in Developing Countries

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- Energy for industrial and rural development;
- Public sector still the major player;
- Reforms generally incomplete, failures in reforms, limited private sector role;
- Regulation not independent, human and institutional capacity constraints;
- Regional Trading Opportunities not being tapped;
- Tariffs sub-economical, property rights, judiciary;
- Poverty reduction and energy access – 1.6 billion people – 22% of population;
- Governance issues- access and quality.



# Challenges for RE regulation

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- Human resource, institutional capacity;
- RE Resource availability and concentration;
- Instruments for RE –net metering, RPS; FiTs, BIs etc.;
- Off-grid tariffs-concessions;
- Grid infrastructure- not smart enough!
- Quality and technical performance;
- Consideration of carbon finance benefits;
- Focused on electricity – thermal energy regulation.



# What's REEEP

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- Global public private active in low carbon energy – RE &EE;
- Launched by UK in 2002 – established in 2004 by UK and Austria.
- 300+ partners, 46 governments.
- Major support – UK, Norway, Australia, Ireland, Italy, US, Germany, Austria, Netherlands, Spain, NZ.
- 130+ projects over 4 years, over 50 countries.
- 55% in low carbon energy policy and regulation.

# What are we doing?

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- SERN –CMUR-Warwick-Uni – Knowledge management and exchange network – Policy & Regulation Review – online searchable database 80 countries– Capacity Building;
- Electricity Governance Initiative – India, South Africa, Brazil- WRI/Prayas;
- Off-grid decentralised energy regulation – Ghana, Mozambique – IT Power;
- RECs – India, IREDA- FOR;
- Regulatory Instruments – Mexico – CRE;
- RE Regulatory framework – Namibia;
- GIS/IT in regulatory planning - Ghana



# Emerging lessons

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- Capacity Building – Critical need;
- Electricity Sector Governance – imp role;
- Off-grid energy regulation – more work to be done;
- Household energy access and end-use energy efficiency pose greater challenges;
- Framework for low carbon/environmental benefits trading;
- Low Carbon Energy Technology Specific Regulatory Instruments



# Conclusions

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- REEEP has made modest contributions in Low-Carbon Energy regulation;
- Significant challenges and opportunities in developing countries;
- REEEP role is a facilitator – Regulators and Governments to use the partnership and its resources to realise opportunities in Low-carbon Energy Regulation.



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# Thank You

[www.reeep.org](http://www.reeep.org) - NewsREEEP  
[www.reeple.info](http://www.reeple.info)

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Pictures from REEEP supported projects.

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