



International Gas Union



News, Views
and knowledge
on Gas - World Wide



RUSSIAN GAS SOCIETY

Energy Dialogue: Russia-European Union. Gas Aspect

Natural Gas: Powering the Low-Carbon Economy

Torstein Indrebø
Secretary General of IGU

19 May 2011, Berlin,
Germany





The global energy future



Impacting the global framework:

- Rising population – from 6 to 9 billion in 2050
- Human strive for a better life
- Technological progress
- Climate change concerns



The world needs:

- More energy
- Cleaner energy
- Affordable energy
- Safe energy

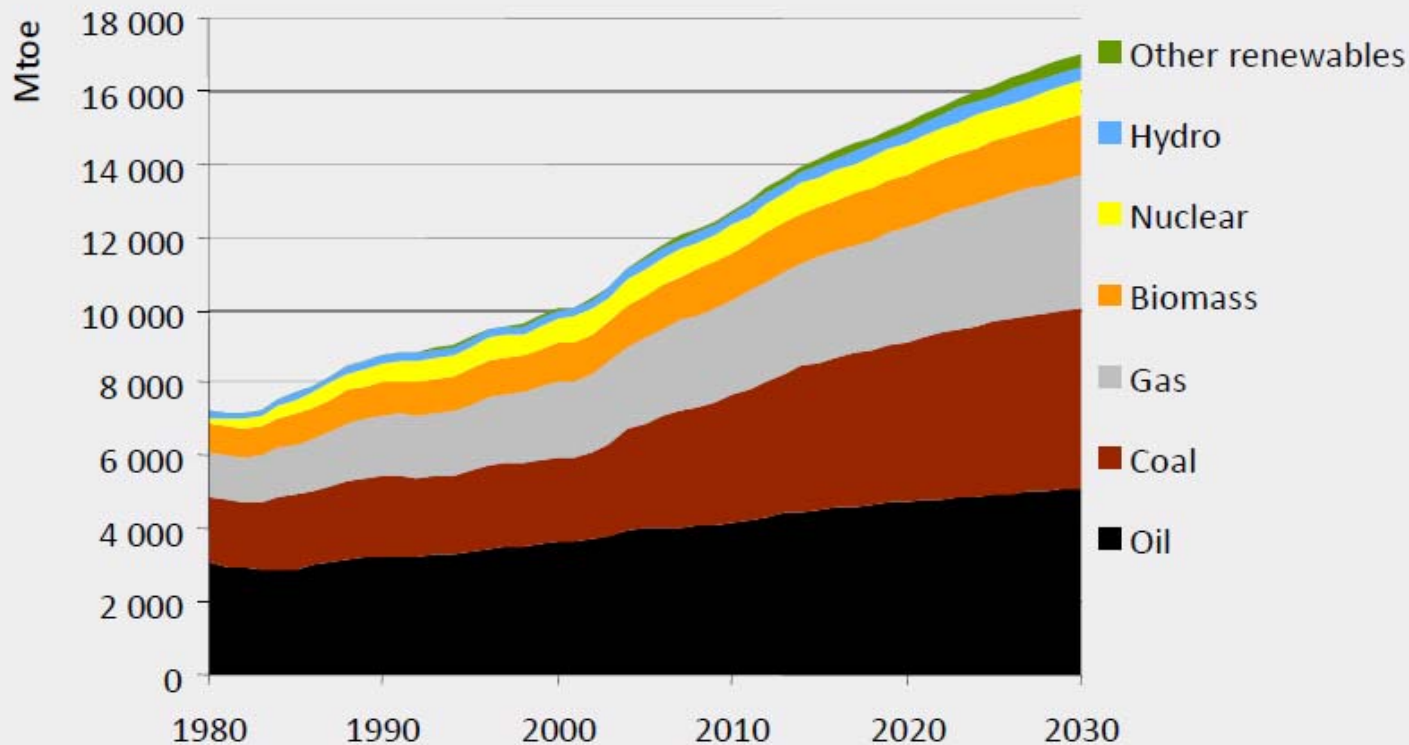




Growth in all fields, but fossil fuels will dominate



Source: IEA WEO 2010



World energy demand expands by 45% between now and 2030 – an average rate of increase of 1.6% per year – with coal accounting for more than a third of the overall rise

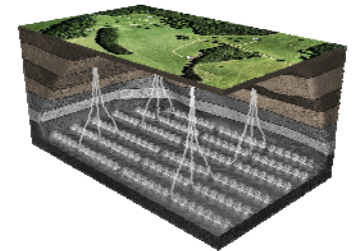


Technological progress



- **Unconventional gas**

- Shale gas, tight gas and coal bed methane



- **LNG Developments**

- Large scale plants, ships, terminals



Impact on availability, affordability and supply security





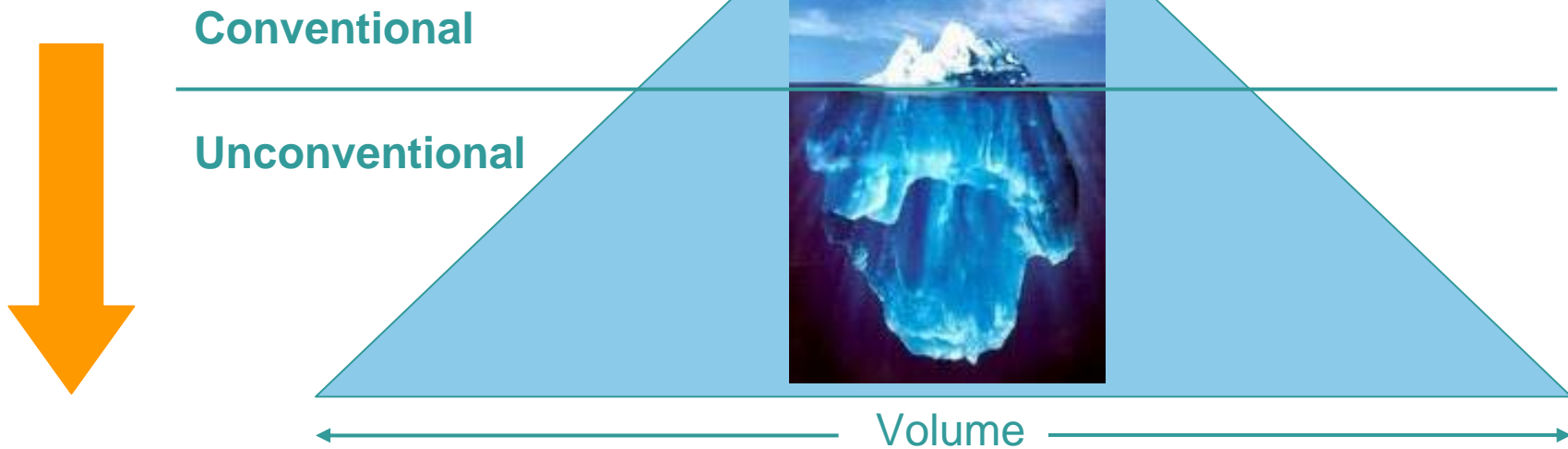
Natural Gas reserves: plenty & more to come



News, Views
and knowledge
on Gas - World Wide

Recoverable gas resources are growing

Unconventional gas has come
within technological & economic
reach



Recoverable gas resources for 250 years

- IEA-WEO2009 -





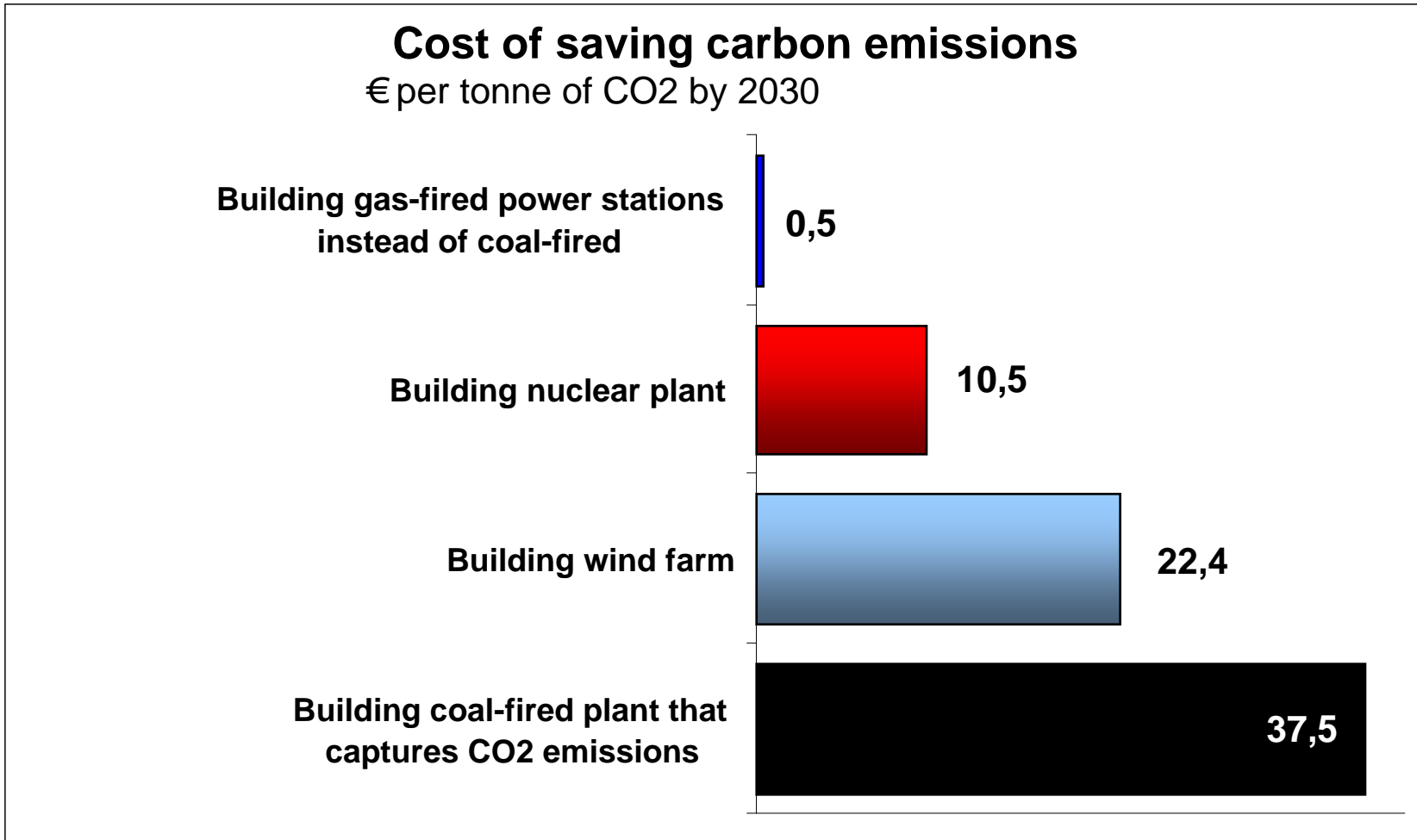
Role of gas in mitigation of climate change



- **Power production - CHP**
 - Lower GHG emissions, particles, soot
- **Transportation sector**
 - Air quality, lower GHG emissions
- **Enabler for biogas, wind, solar**



Cost of reducing CO2 emissions



Source: McKinsey



Gas for Transportation



Natural gas is applicable for most kinds of transportation





Natural Gas enables renewable energy



Natural Gas - Wind - Solar

Natural gas can
facilitate production
of intermittent
renewables



An ideal combination





Energy Infrastructure

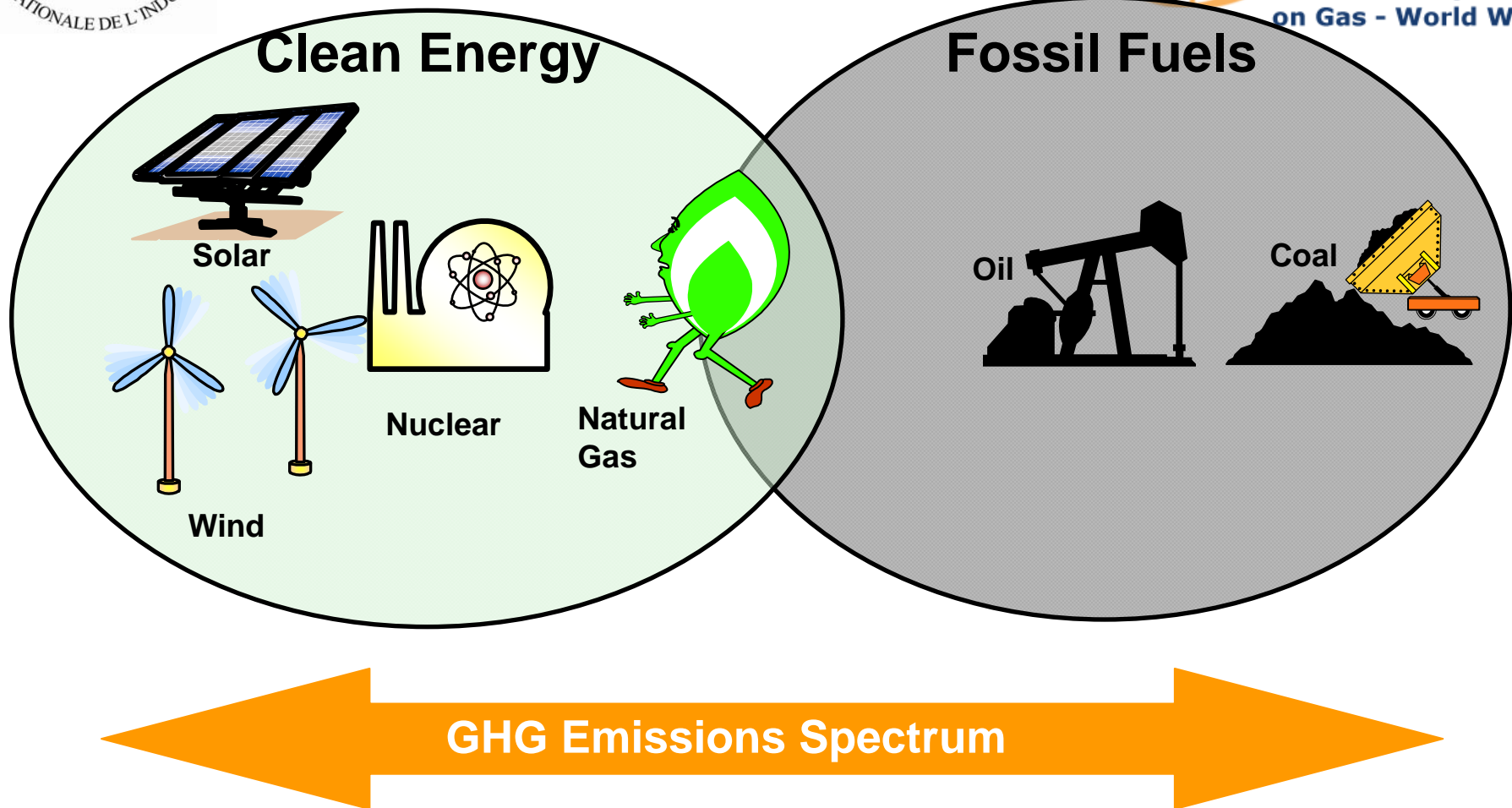


- **Energy systems – 40-50 years lifetime**
- **Societies invested huge amounts in infrastructure**
- **Capital intensive**
- **Important to build on existing infrastructure**



Costly to make wrong policies







Natural Gas CARES for the world



- C** - Clean
- A** - Affordable
- R** - Reliable
- E** - Efficient
- S** - Secure



➔ www.igu.org/gas-advocacy





IGU Research Conference 2011



News, Views
and knowledge
on Gas - World Wide



International Gas Union Research Conference

Korea 19-21 October



Innovation is the key to a sustainable future!

Registration and more information:

● www.igrc2011.com



25th World Gas Conference



**“GAS – SUSTAINING FUTURE
GLOBAL GROWTH”**

**Kuala Lumpur Convention Centre
4 to 8 June, 2012**



www.wgc2012.com



A climate-friendly energy policy for Europe



- Enhance energy efficiency and savings
- Increase the use of gas in power generation
- Phase in renewable energy
- Develop Carbon Capture and Storage technology



➔ *Pick the "low-hanging fruits" first!*



www.igu.org



**News, Views
and knowledge
on Gas - World Wide**

