



18th Turkmenistan International Oil and Gas Conference



Natural Gas Supporting Social and Economic Development

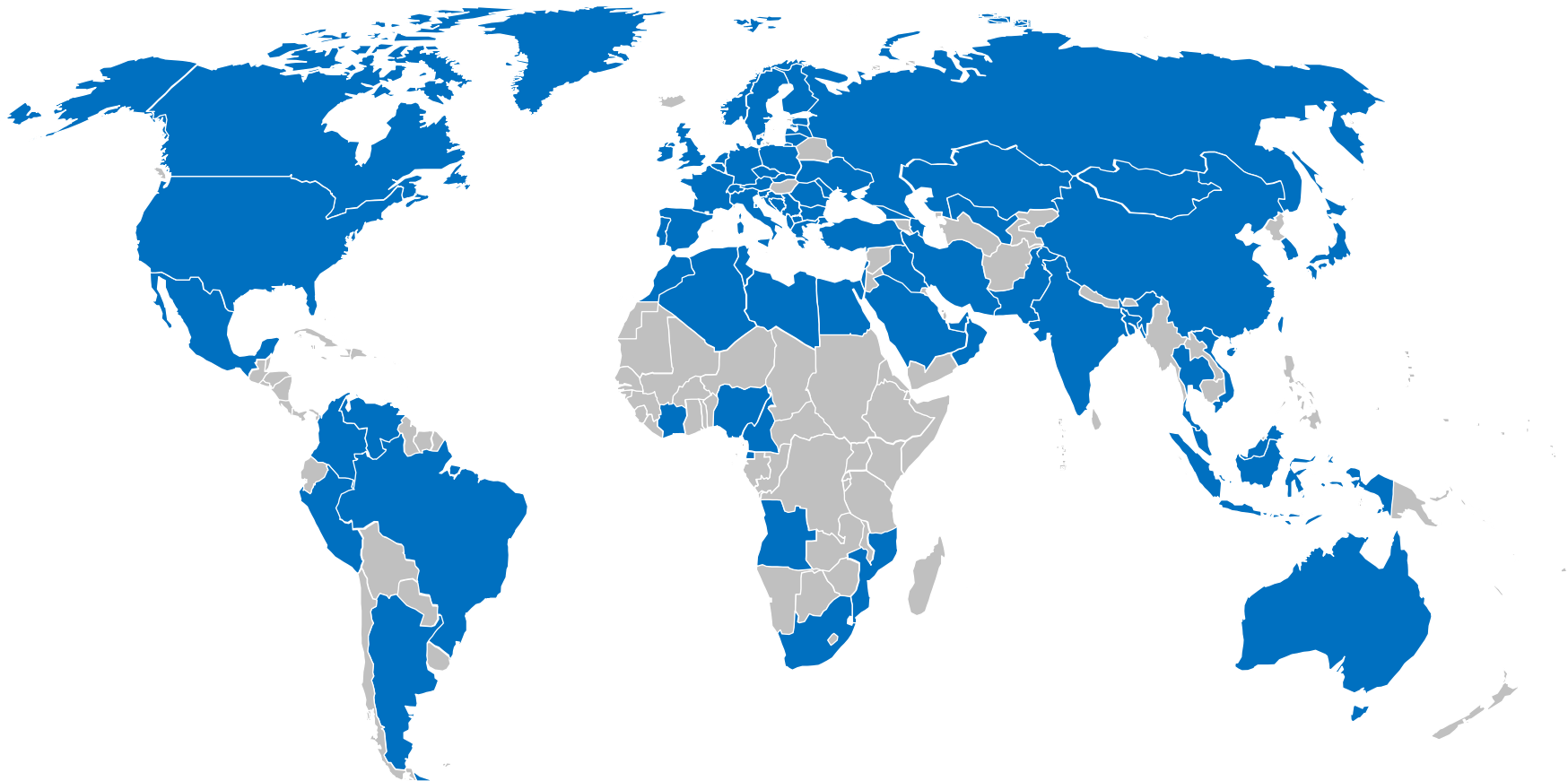


***Ksenia Gladkova
Senior Advisor
International Gas Union***

***Ashgabat, Turkmenistan
21 November 2013***

International Gas Union

- Supporting the gas industry worldwide



Founded in 1931

www.igu.org

 IGU members

83 Charter members
43 Associate members

IGU – the Global Voice for Gas

- The only global institution focusing solely on gas
- 1000 international experts working in 14 committees
- Unique role of gas in satisfying energy demand and mitigating climate change.
- Range of options, no “single fuel”
- Foundation fuel for current and future energy needs.



The Global Energy Dilemma

- Energy demand to double between 2010 and 2050
- 7 Billion in 2010 → 9 Billion in 2050
- Fastest growth: power generation, transport, industry
- Access to energy is crucial
- GHG emissions' reduction vs increase in energy consumption.
- Correlation between energy consumption and social indicators (literacy, infant mortality, fertility...)



Gas is available - and widely distributed

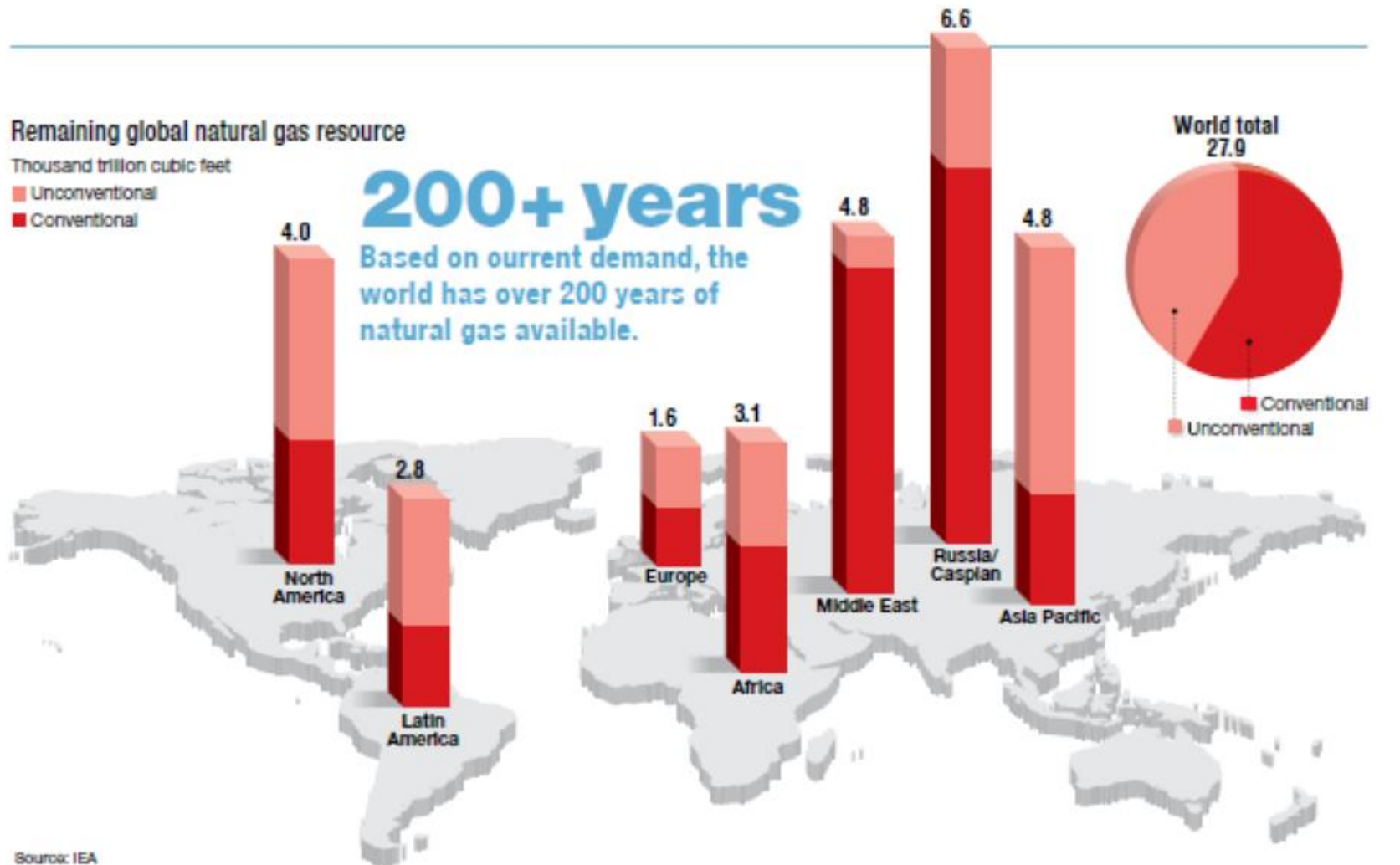
Remaining global natural gas resource

Thousand trillion cubic feet

Unconventional
Conventional

200+ years

Based on current demand, the world has over 200 years of natural gas available.



Advantages of Gas – the 5A

Available

- *Resources enough for more than 250 years of use*



Acceptable

- *Gas burns cleanly and efficiently. When used, helps protect public health by reducing emissions and improving air quality. Minimal impact on the landscape.*



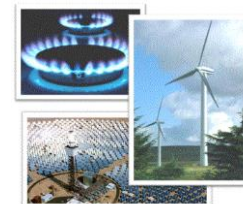
Accessible

- *Gas can be moved over land through pipelines and over seas as LNG*



Adaptable

- *Gas installations can be adapted to technology developments (CHP, Biogas, Hydrogen).*
- *Gas is storable and complement variable renewables*



Affordable

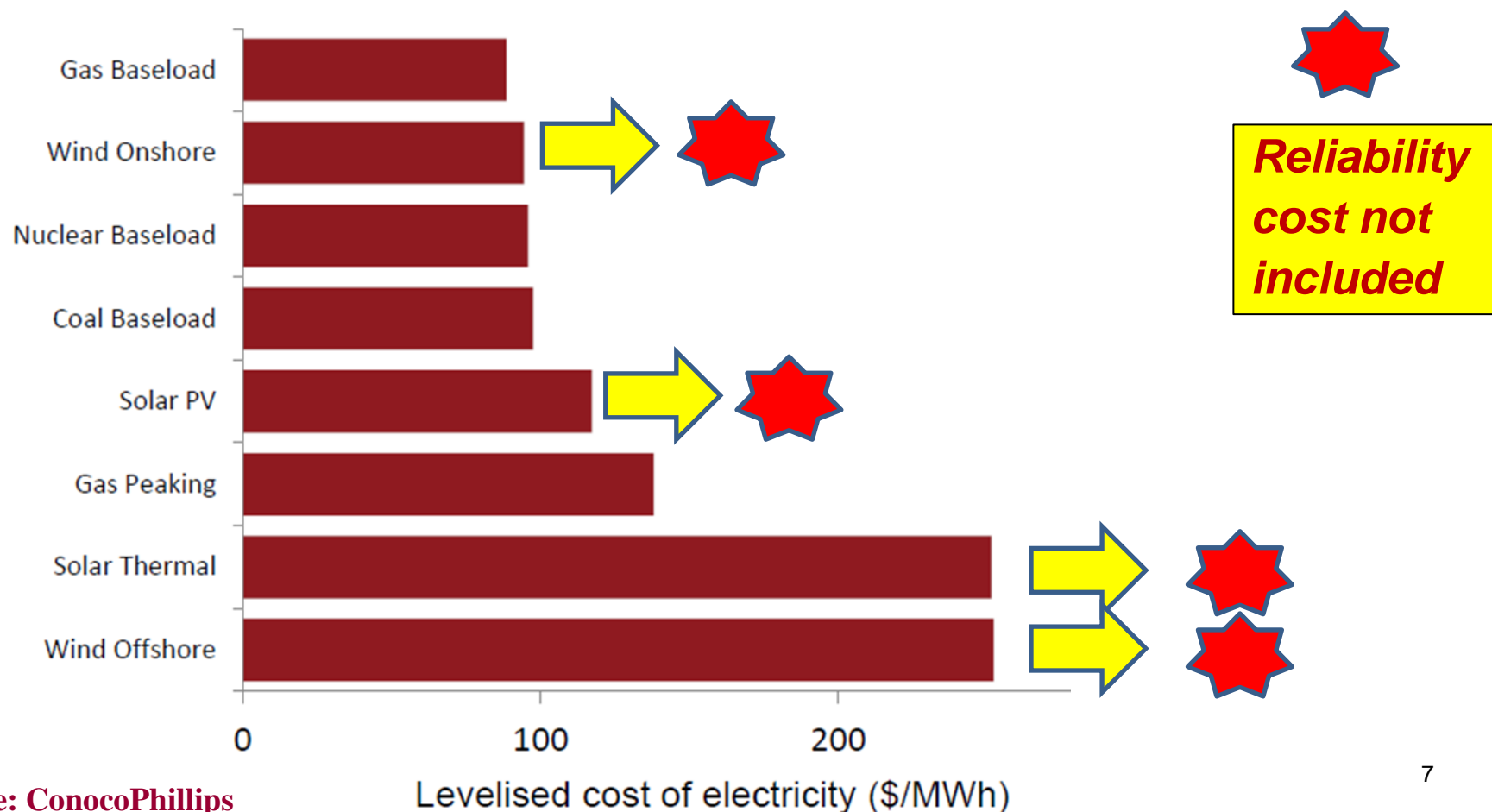
- *Gas is a competitive energy option as an affordable fuel choice and because of its efficient end-use applications.*



Natural Gas – competitive & affordable

Comparison of generation cost

(10 eur/T CO₂, 10 usd/mmbtu gas, 100 usd/mt coal, cap cost EIA 2013)



Natural gas fueling the global economy – offers a wide range of applications



Fuel for
Gas District Cooling



Fuel for
Residential



Fuel for
Commercial



Fuel for
Automotive



Fuel for
Industry



Fuel for
Power Generation



Fuel for
Petrochemical Feedstock

Natural gas partnering with renewables

Society needs energy 24 hours / 7days

Gas



Wind



Solar



Hydro



**Capacity
utilisation**

90-100%

30-40%

10-25%

Drought

***Natural gas easy
to turn on and off***



A robust and sustainable energy policy

- **Energy efficiency & savings**
- **Enhance use of gas in power generation and transportation**
- **Phase in renewable energy**



Gas: The fuel of today and tomorrow!