



**Topic: The Energy Future is in Gas**

**Speaker Name: Marc Hall**

**Session Date/Time : 05 June 2012/10.00-11.00 AM**



# London 1952

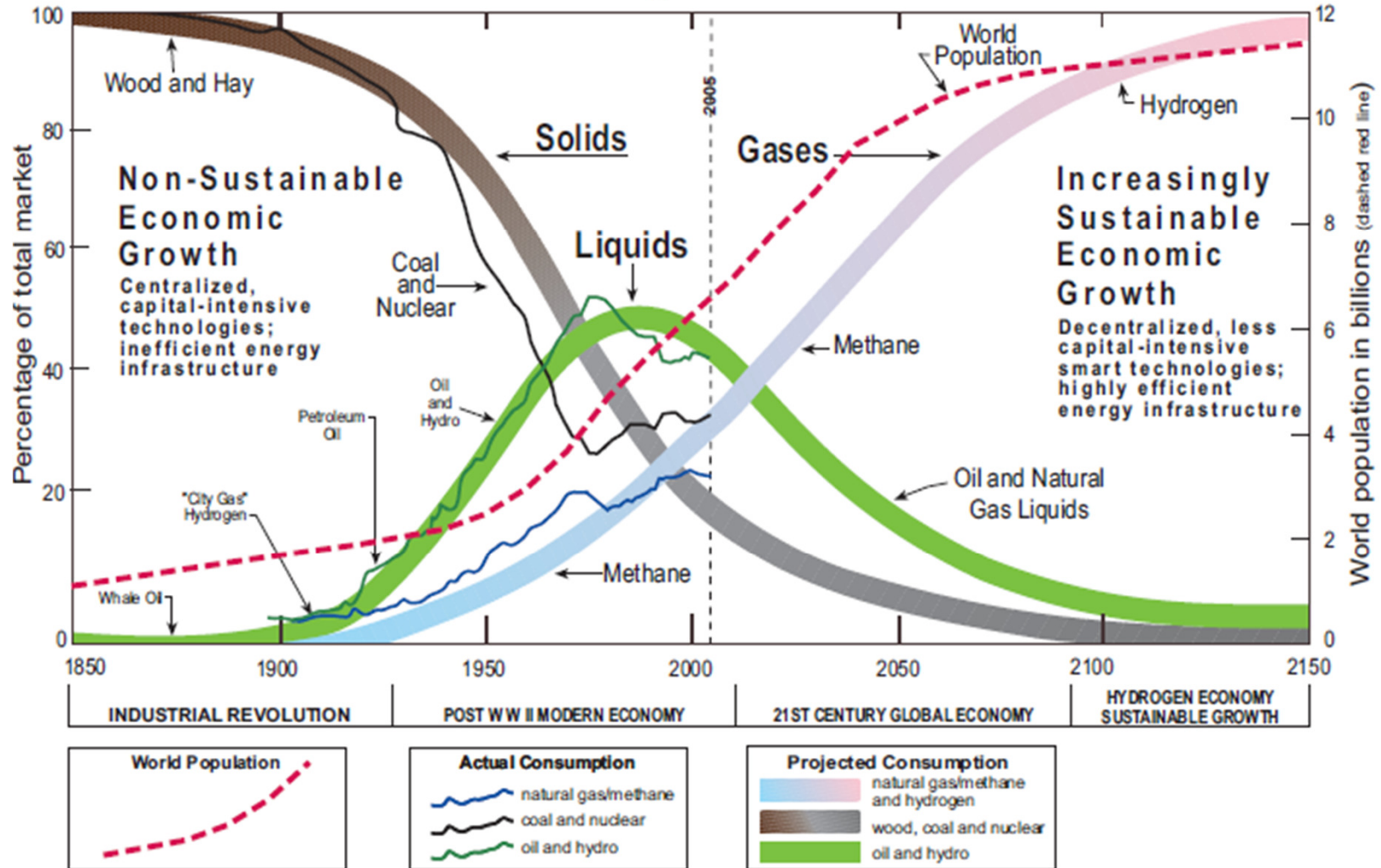






# Gaseous energy sources are inexhaustable and indispensable

The Age of Energy Gases  
Global Energy Transition Waves



# Bright future of electricity!



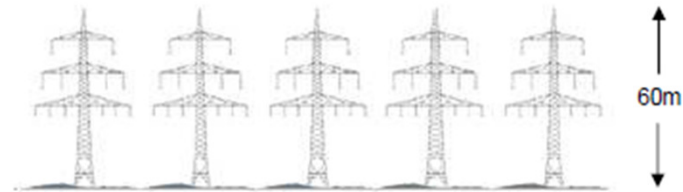


# Natural gas has advantages in energy transmission

Foto: Ruttkamp; Grafik: RAG



vs.



**„Footprint for transmission of 14,000 MW electricity“**

1 invisible gas pipeline DN900

Wide clearance for five 380 kV  
electric power lanes

# Natural gas has advantages in storage

## Hydropower plant (Germany) Project Atdorf (2018) (Hornberg basin II)

## Underground gas storage Rehden (Germany) in full operation

Foto: Meyer, Schluchsewerke (google)



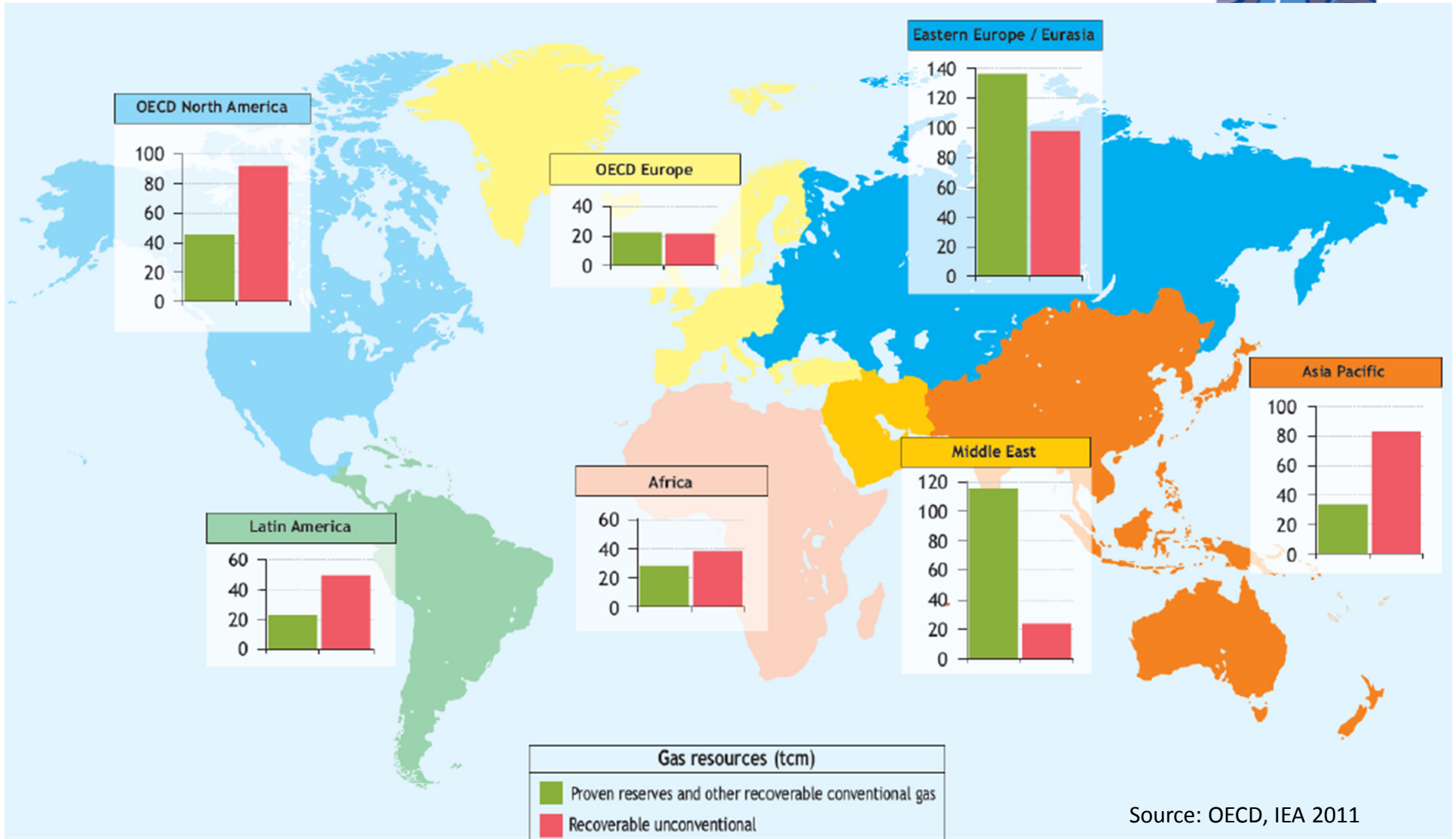
Foto: wingas

Water: 9 mio m<sup>3</sup>  
 Electricity storage  
 facility : 13 GWh  
 Investment costs : 1 bn €

**x 2000 =**

Gas: 4,200 mio m<sup>3</sup>  
 Electricity storage  
 facility: 28,000 GWh  
 (60 % Efficiency)  
 Investment costs: < 1 bn €

# Global gas resources of un-/conventional resources exceed 250 years of current production

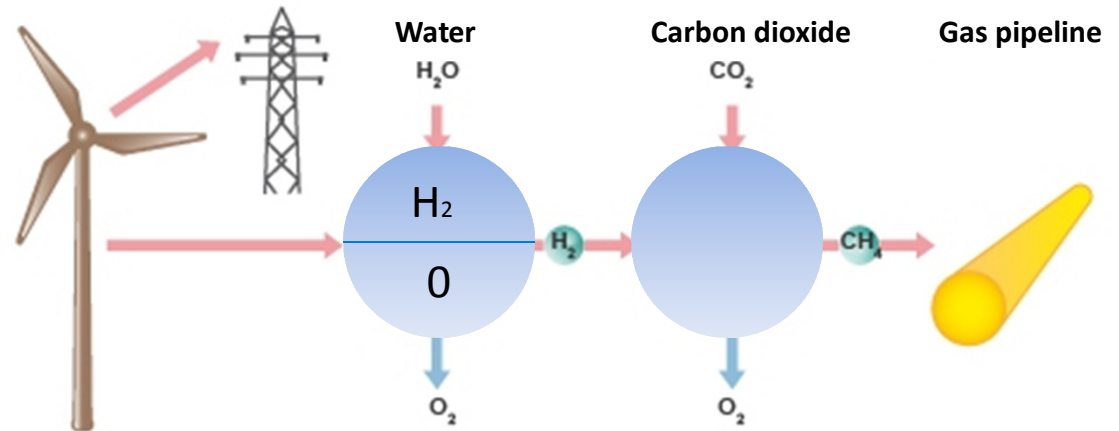


Source: OECD, IEA 2011



# Gas is not necessarily fossile

Production of synthetic natural gas by electrolysis



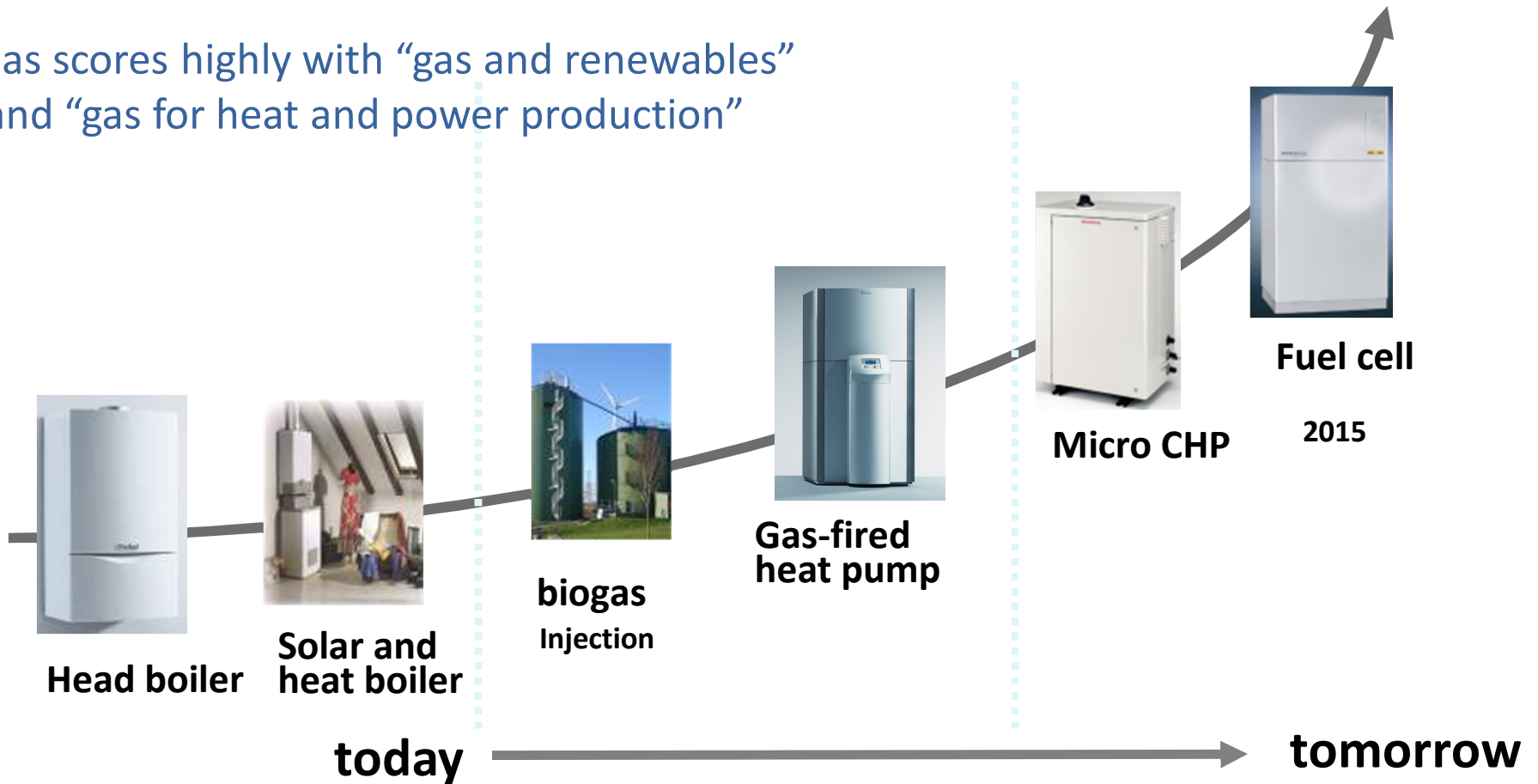
Biogas production from wood, sewage sludge, crop, algae, etc.



# High-tech utilization



Gas scores highly with “gas and renewables”  
and “gas for heat and power production”



# Paradise



Foto: Bayergas





# Paradise

