

26th World Gas Conference

1 – 5 June 2015, Paris, France



Thematic Session PGC F-2

Convergence of gas appliances and infrastructure with electric systems and renewable energy

Prof. Dr. Gerald Linke

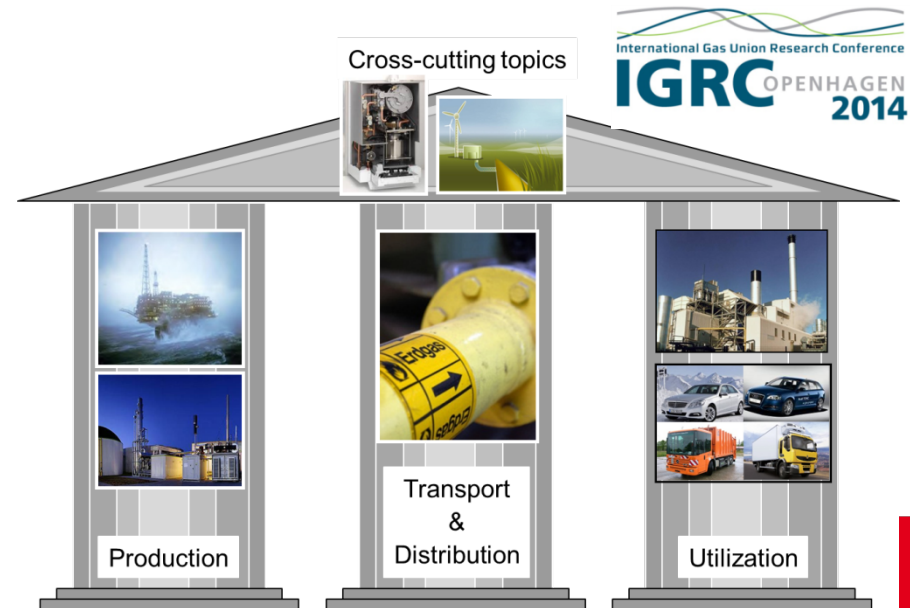
German Gas & Water Association (DVGW)



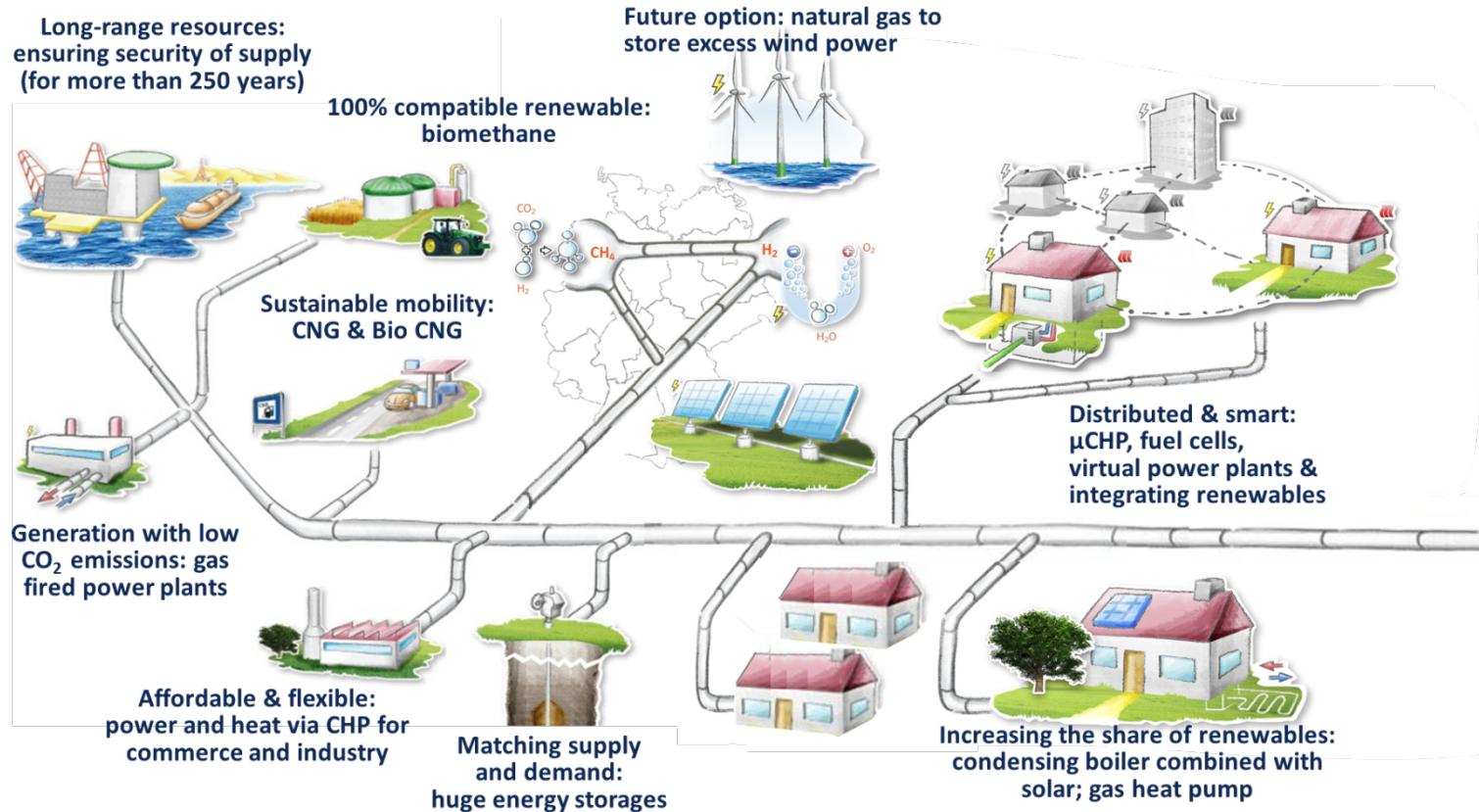
Convergence gas – electric systems - renewables

Convergence of systems (gas, power and renewables) turned out to be the dominating topic at the IGRC

- **Cross-cutting topic: Convergence**
- Production (& sourcing of gas)
- Transport & distribution
- Utilization (domestic, commercial, industrial)

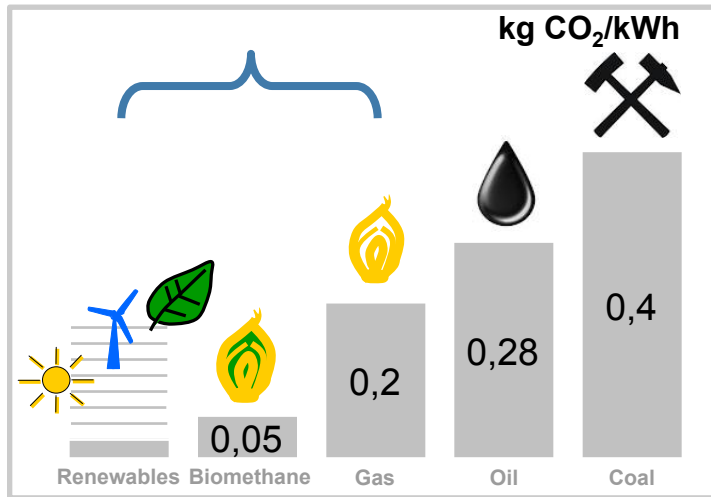


Future energy systems will be integrated ones

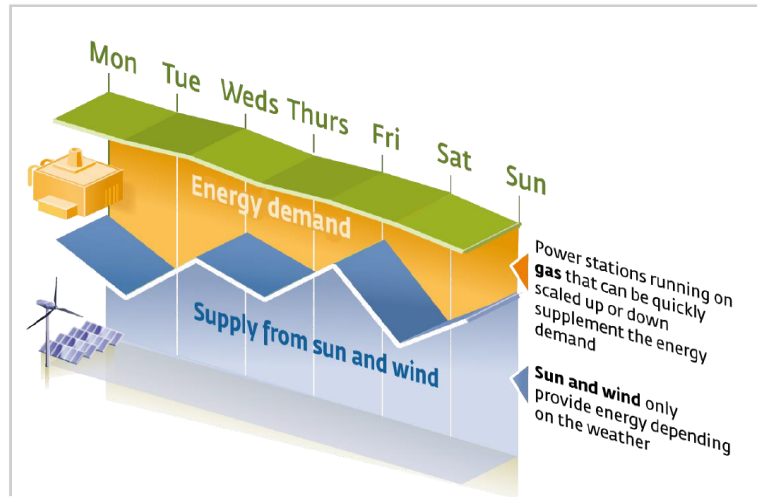


Why does convergence make sense?

Team with lowest emissions

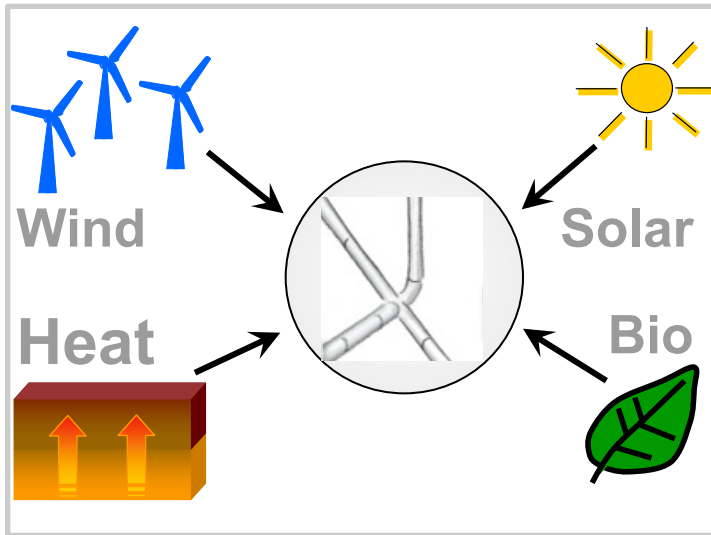


Fluctuation meets flexibility



Why does convergence make sense?

Gas integrates renewables



Gas renews itself



- Biomethane (from maize, silage, waste)
- SNG (from wood, straw, algae, ...)
- Hythane (H₂ and CH₄)

More Examples

Kunihiro Nakao, Assistant Manager, Osaka Gas	VERIFICATION TESTS OF THE ENERGY SYSTEM INTEGRATED OF CGS AND RENEWABLE ENERGY
Claude Mandil, Marketing Research Manager, Schlumberger Business Consulting	HYDROGEN-BASED ENERGY CONVERSION - SYSTEM FLEXIBILITY AND MORE THAN JUST STORAGE
Britta K. van Boven, N.V. Nederlandse Gasunie	SYSTEM INTEGRATION: WHAT GAS INFRASTRUCTURE HAS TO OFFER TO A RENEWABLE ENERGY SUPPLY
Dr. Saeid Paskeresght (NIGC)	Bio-Gas Power plant in Iran