



25th world gas conference
"Gas: Sustaining Future Global Growth"

Gas quality changes, impact & remedies

EF5.B WOC5

7 June (Thu.) 2012, 9:45 – 11:45



Patron



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Gas quality change will increase in frequency and amplitude

- Market liberalisation
- Security of supply → diversification of sources
- More LNG
- More Biogas
- Shale gas
- H₂

FROM OUR IGU QUESTIONNAIRE

Countries that do not expect gas more quality variations

- Countries that have gas from a unique source
- Long term contracts for gas supply
- National rules

Countries expecting more variations

- Harmonisation of the European gas quality specification
- LNG
- Biogas
- Increasing diversification of sources

Impact on utilisations

- Countries having no experience with variations are more cautious with their answers on impact.
- In general impact expected on industrial process, mCHP (fuel cell)

Session aim

- To exchange on gas quality issues in existing markets worldwide including the impact of gas characteristics variation on utilisations.
- To discuss about the remedies and way to enlarge gas quality range distributed in practise.

Session “Gas quality changes, impact & remedies” Programme



Part 1 How does gas quality impact gas utilisations?

- **IMPACT OF GAS QUALITY VARIATION ON GAS APPLIANCES IN JAPAN** by Mr. Tatsuo Kume - Osaka Gas **(15 minutes)**
- **IMPACT OF HYDROGEN ADMIXTURE TO NATURAL GAS ON INSTALLED GAS APPLIANCES** by Mrs. Petra Nitschke-Kowsky - E.ON Ruhrgas AG **(15 minutes)**
- **RESEARCH PROGRESS ON GAS INTERCHANGEABILITY IN CHINA** by Mr. Qi Wang - China Gas Society **(15 minutes)**
- **GAS QUALITY HARMONIZATION: THE EUROPEAN SITUATION Part 1: GASQUAL project results** by Mr. Jean Schweitzer - DGC **(10 minutes)**

Part 2 Solutions: Controlling combustion or mixing gases as a way to accept a wider quality range

- **COMBUSTION CONTROL BASED ON FLAME IONIZATION** by Mr. Sungbae Park - Bosch Thermotechnology & Martin Kiefer - Karlsruhe Institute of Technology **(10 minutes)**
- **DEVELOPMENT OF NEW CALORIFIC VALUE ADJUSTMENT SYSTEM FOR WIDE RANGE OPERATION** by Mr. Naoya Iwata Toho Gas **(10 minutes)**

Part 3 Widening the gas quality range distributed in practise

- **GAS QUALITY HARMONIZATION: THE EUROPEAN SITUATION Part 2: Possible models for harmonisation in the EU** by Mr. Francois Cagnon - GDFSUEZ **(10 minutes)**

Part 4 Round Table Mr Daniel Hec - Marcogaz

THE RIGHT BALANCE FOR GAS QUALITY?

Two main options:

1) GAS APPLIANCES SHALL BE ABLE TO COPE WITH SIGNIFICANT GAS QUALITY VARIATIONS

Or

2) GAS QUALITY SHALL BE KEPT STABLE