

### **International Gas Union**



# THE EVOLUTION OF THE UK GAS INDUSTRY

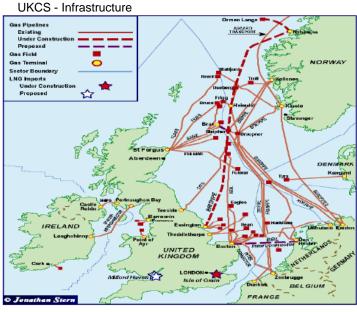


#### **Main Drivers**



- Energy Security and Diversity of supply
  - Increased dependence on imported energy (2004 self –sufficient)
  - Expanding import capacity (pipeline and LNG terminals) to allow greater volume and diversity of supply source
  - Extending supply options to include supplies from other exporting countries via LNG imports and spot trades
  - Diversifying supply to avoid over dependence European pipeline connections
- Infrastructure Expansion (NG and LNG)
  - Existing physical pipeline connections include imports from Norway, Netherlands, and import/export Interconnector link to Belgium
  - Increased pipeline capacity from Norway and Netherlands
  - LNG Milford Haven (Dragon & South Hook) and Isle of Grain
- · Price structure
  - UK gas market one of the world's most liquid markets with a flexible mix of price regimes

Drivers for UK are meeting two major long term challenges- clean & secure energy



Source::http://www.oxfordenergy.org



## **Main Challenges**



- Harmonizing effects of different types of gas regimes
  - UK includes pipeline NG, LNG, short terms and spot trading
  - Interconnection via Europe long term oil indexed contracts
  - Juxtaposition of regimes leads to price spikes, volatility and market inefficiencies
- UK and EU gas import dependencies
  - State driven export strategies impacts market fundamentals and security of supply concerns (Russia, Algeria, Nigeria)
- Delivering secure, clean energy at affordable consumer prices
  - 'clean coal' indigenous energy source plus carbon capture and storage technology
  - nuclear

seen as potential 'answer' to energy security

- Emerging view of more Government interventions needed
- Re-regulation European Gas Industry.
  - · European Commission Third Energy Package

Main challenges for market integration are creating an alignment of gas regimes and fuel supply source options



## **Main Policy Options**



- Improve European linkages to support price competitiveness
  - Physical linkages and more liberalized European market??
  - · Coordinate main energy policies and regulatory frameworks
  - · Smooth contract complexities
- Deliver secure clean energy at affordable prices
  - Allow LNG infrastructure to improve supply import diversity
- Energy security
  - Improve storage facilities and offshore infrastructure usage to better utilize indigenous UKCS gas and import LNG offshore
  - · Set targets for fuel mix?
  - · Government to invest in 'strategic storage'?
- Climate change commitments
  - · Include gas CCGT for carbon capture and storage pilot

Aligned timing of policy goals with key elements for improved integration and energy security



#### **Main benefits**



- Energy security and diversity of supply
  - A planned transition toward greater import dependency
    - Post liberalization move from end-user market to a globally interconnected market.
    - · Improved accessibility
- •. Operational optimization (physical and contractual). has allowed market liquidity and flexibility.
- Economic and Environmental development
  - Competition has delivered the provision of better services and lower prices and for private company investors benefit from certainty in regulations, transparency and long term market signals.
  - To meet UK and EU Kyoto commitments
    - GHG emissions reduction targets

Benefits linked to development and energy and climate goals



## **Conclusions and Lessons learned**



- It takes time. Over two decades for UK to move from a gas monopoly to a fully open market viz
  - full choice for all customers to select the supplier of gas.
  - no single player has a dominant position or significant market power.
  - clear and distinct ownership and operation of various segments of the gas value chain.
  - full access to gas infrastructures (e.g. pipeline, gas storage, LNG terminals), availability of risk management instruments (spot, futures, etc.) and gas spot and futures markets are established.
- It takes strong policies. Three distinct phases
  - Market liberalization/competition for lower consumer prices
  - Fully open market. Geopolitics and availability of supply concerns Infrastructure development
  - Post liberalization complexities. Delivery of secure, clean energy at affordable prices
- It can be achieved
- Supportive 'light touch' Government interventions needed to address emergent political and geopolitical dimensions..eg strategic storage etc

Stepwise implementation and flexible approach to deliver policy objectives in changing external environment