

Committee on Sustainable Energy



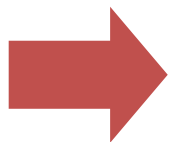
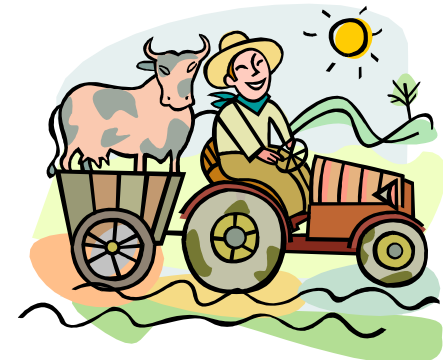
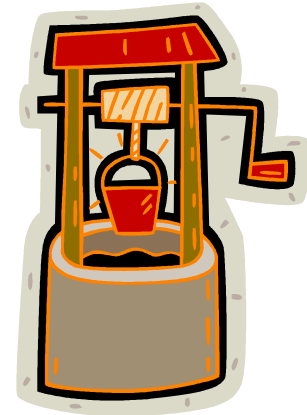
The Role for Gas in Energy Access and Economic Development

**Torstein Indrebø, Secretary General
International Gas Union**

Geneva, 20 November 2014

Access to energy – key to social and economic development

- Farming and agriculture
- Water and irrigation
- Industrial development & job creation
- Health services & education



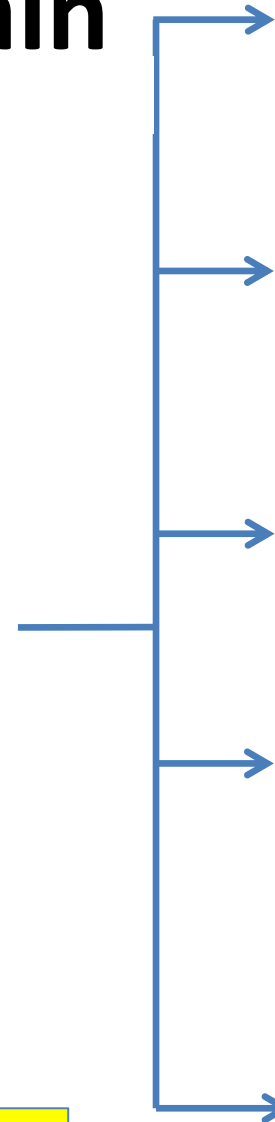
Gas – can support all sectors of society

The Gas Value Chain

Upstream



Midstream



Power



Industrial



Transport



Commercial

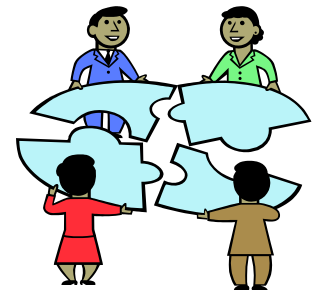
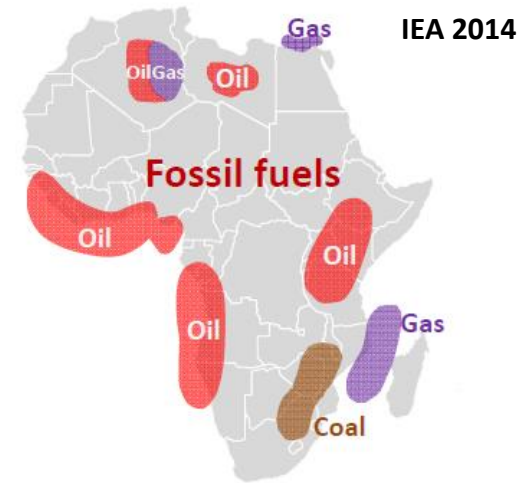


Residential

Gas – many options for utilisation!

IGU support available to UN/World Bank - focus on domestic market development

- Share best practice strategies
 - Country master plans on gas utilisation
 - Public/private - roles & governance
- Share successful business models
 - Sector based: power, industry, distribution, CNG, LNG
- Financing models for gas infrastructure



IGU membership – a pool of competence!

Case: Impact of gas power plant (CCGT, 55% efficiency, ~50% load factor)

A family of 4: 1500 kwh/yr (basic needs)

- **Standard 420 MW plant - 340 mill Sm³**
 - **Power for 5 million persons**
- **Standard LNG export plant – 6 bill Sm³**
 - **Power for ~90 million persons**
- **Nigeria gas production 2013**
 - **~40 billion Sm³**



420 MW



**Approx.
1,9 million KWH**

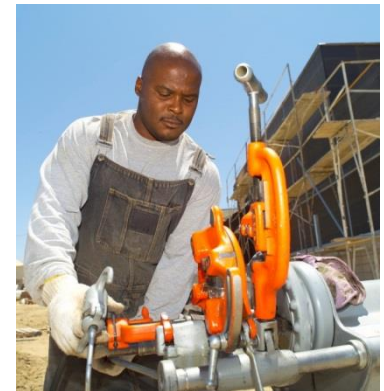


**1,3 million families /
5 million people**



Industrial development

- Industrial plant –ammonia/fertilizers
 - For domestic and export markets
- Industrial plant - methanol
 - Diversify energy export
- Small scale industry
 - Need stable power supply



- Added value and job creation
- Anchoring projects to secure financing

Energy access and.....

- Less indoor and outdoor pollution
- Reduction of deforestation
- Reduced land erosion
- Reduced gas flaring from oil production



Protecting the environment and saving lives!