

October 2006



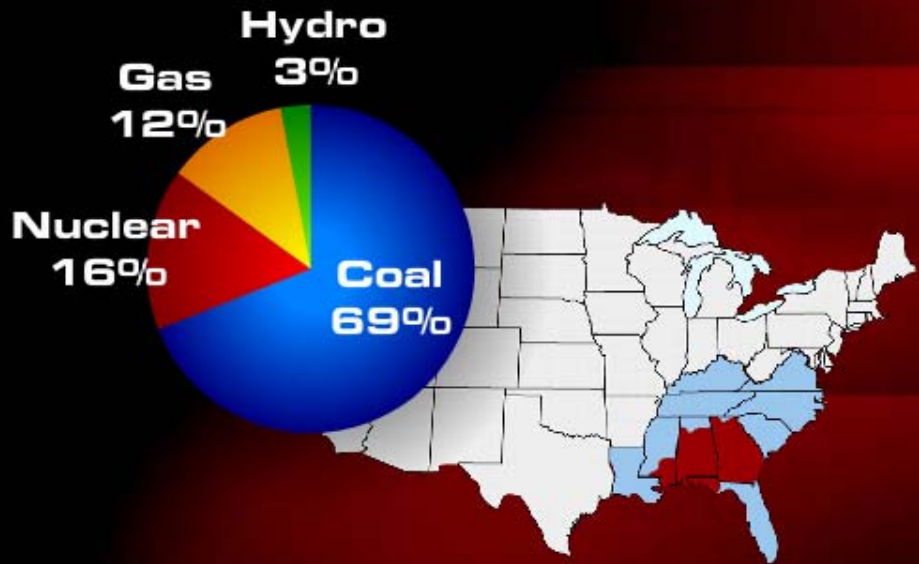
# **KBR/ Southern Company Transport Gasifier: The Path Forward**

**Tim Challand**  
Vice President of Technology  
and Emerging Markets





*Energy to Serve Your World<sup>®</sup>*



**2005 Financial Performance:**

- Revenues: \$13.6 billion
- Net Income: \$1.6 billion
- Assets: \$39.9 billion; 42,000 MW

**Core Service Area**

- 120,000 square miles
- 4.2 million customers, 12 million people



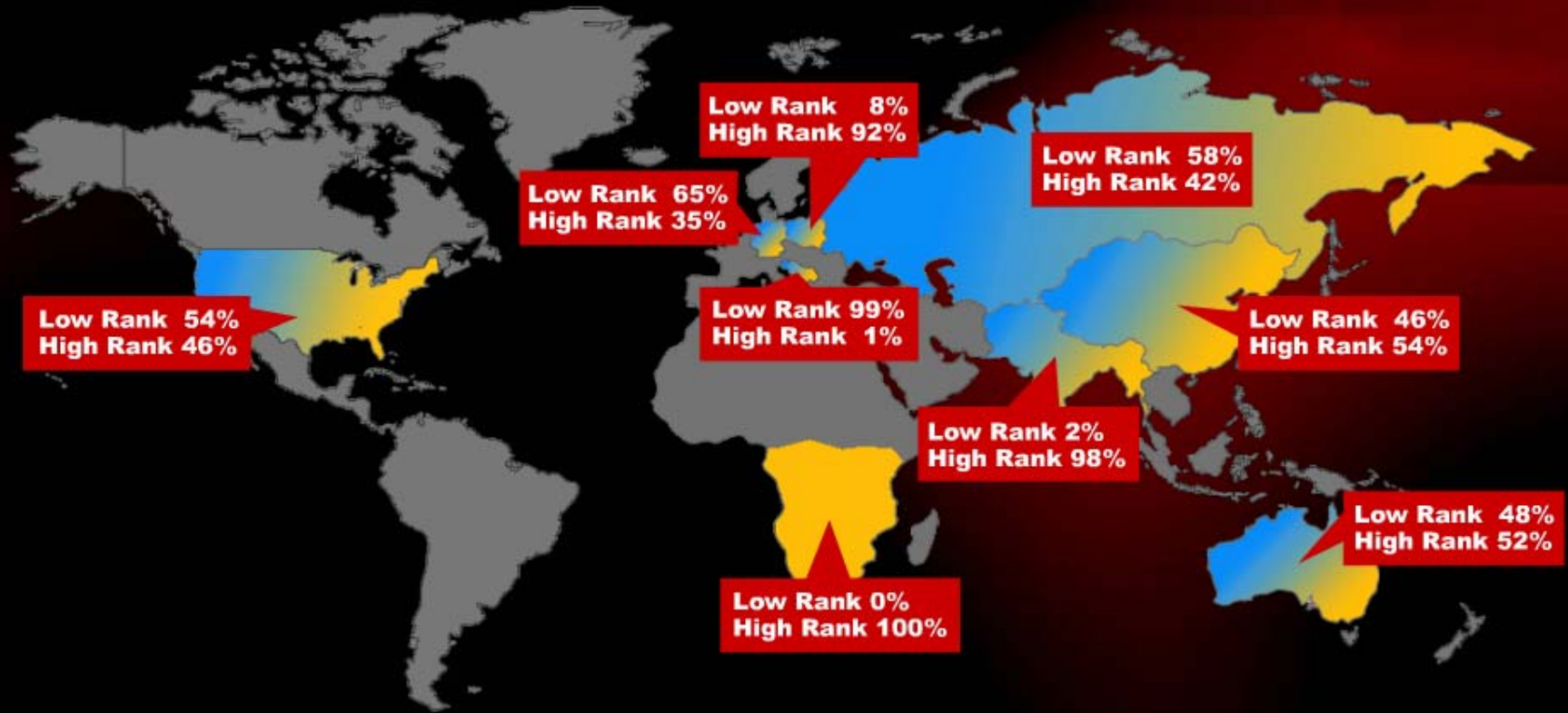
**KBR**

# KBR



- Designed and constructed over half of world's LNG production capacity
- World leader in ammonia process technology
- Proprietary supercritical solvent deasphalting technology (ROSE™)
- Proprietary technology solutions for chemical industry
- Over 60 years of fluid catalytic cracking technology expertise

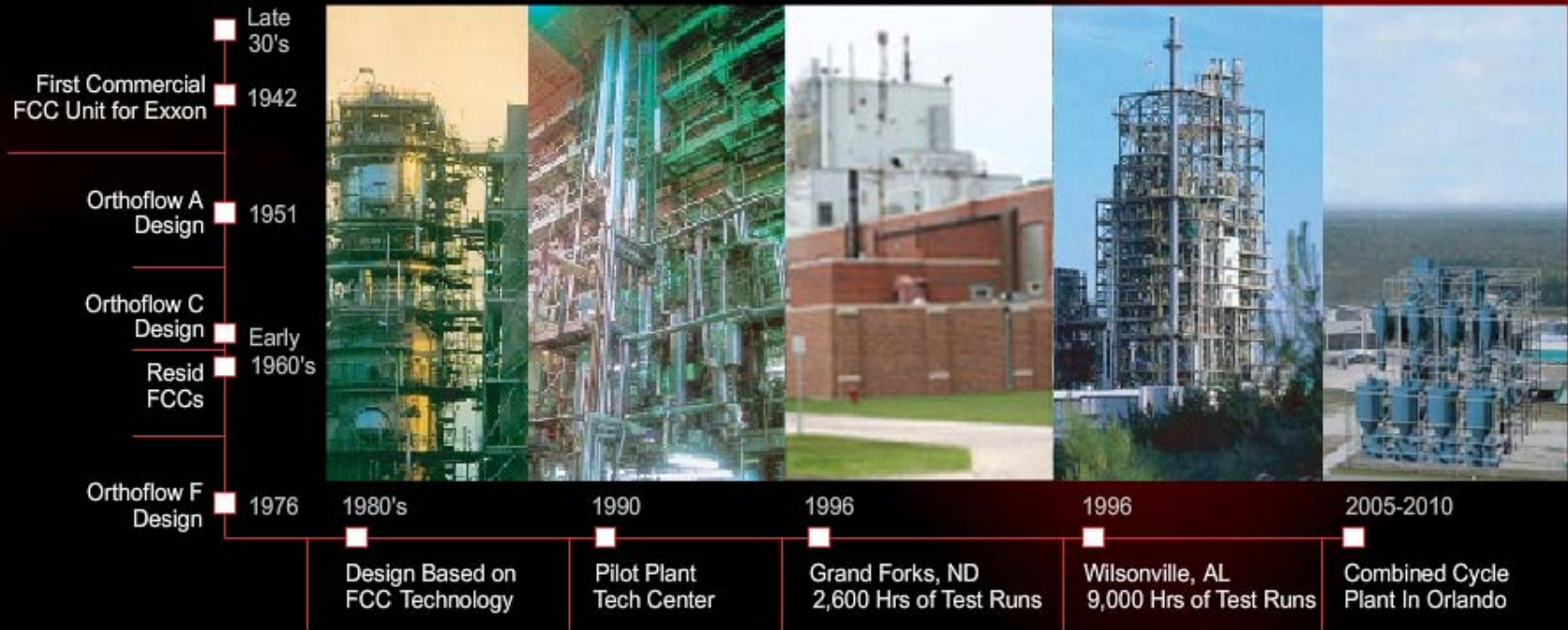
# Worldwide Energy Distribution



SLIDE QUICK NAVIGATION

# History of the Transport Gasifier

SLIDE QUICK NAVIGATION

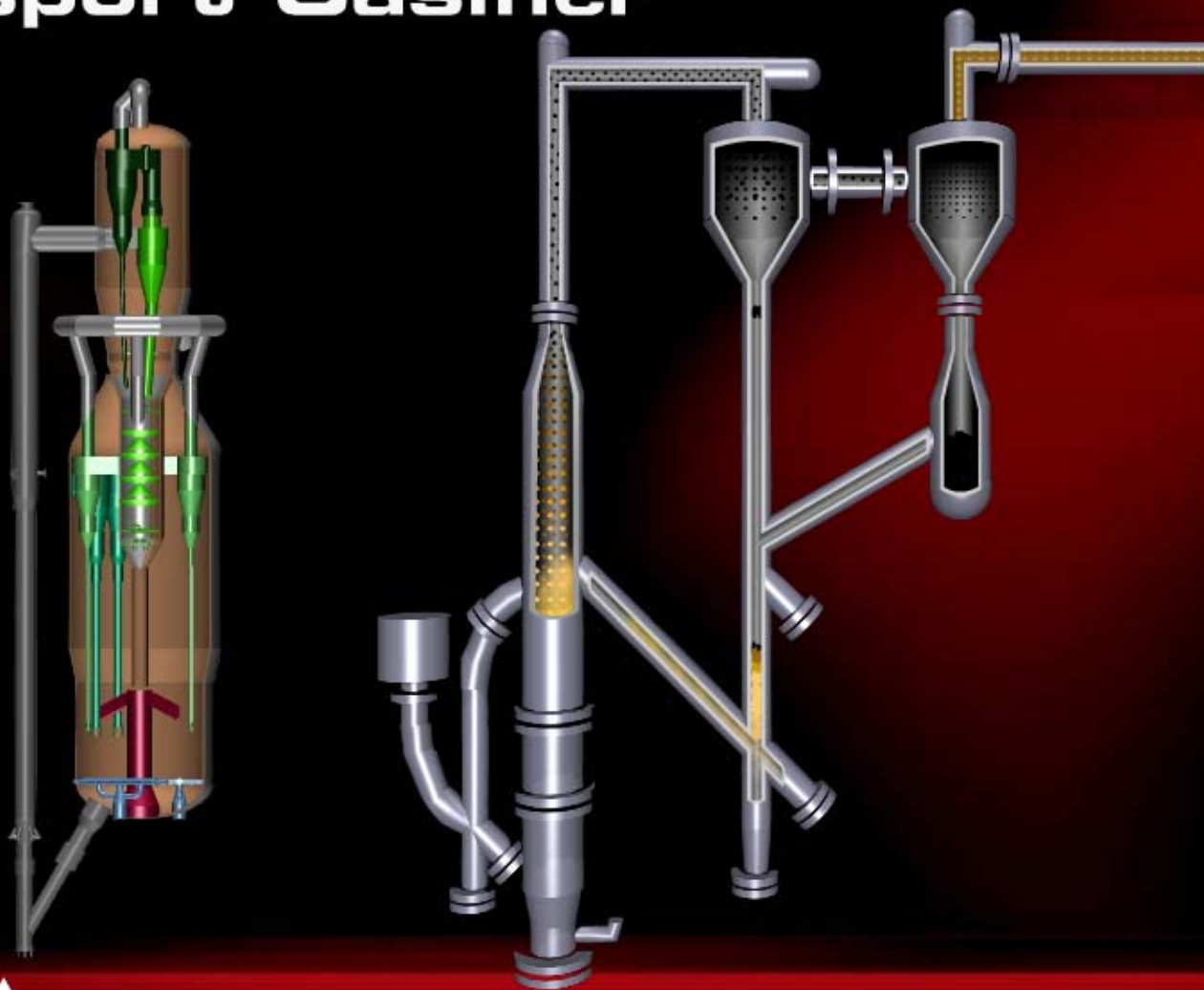


# FCC Technology



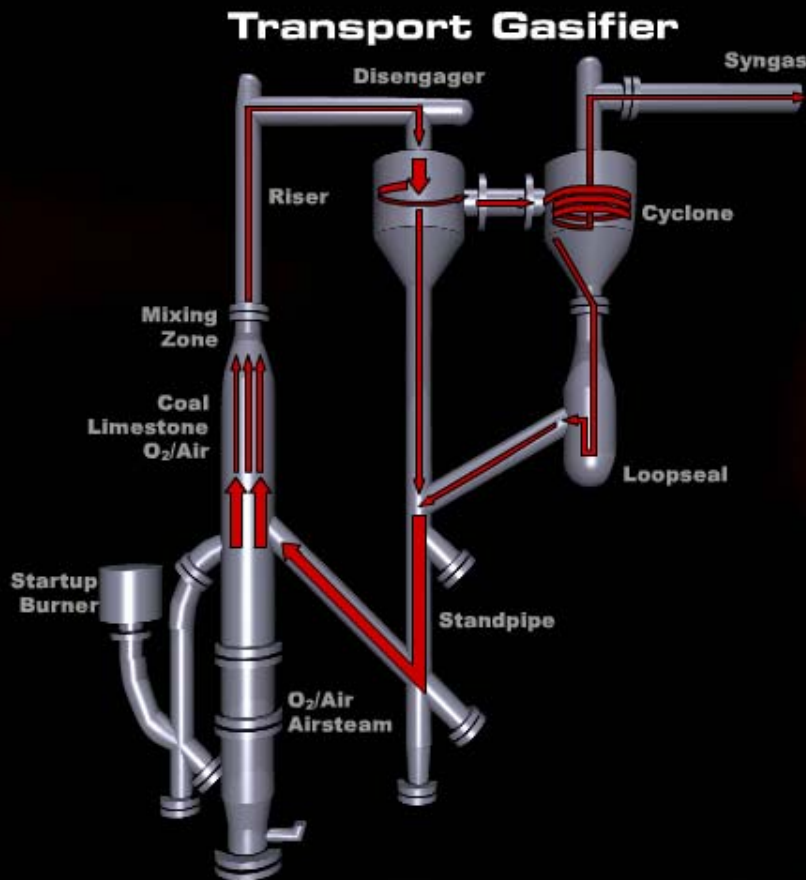
SLIDE QUICK NAVIGATION

# Transport Gasifier



SLIDE QUICK NAVIGATION

# Transport Gasifier Attributes/Advantages



- **Simple, Well Established Design**

- No Internal Parts
- In Use for 50 Years

- **Air-Blown Technology**

- Low Operating Temperature
- Long Refractory Life
- Dry Feed, No Burners

- **Reduced Capital Cost**

- **Reduced O&M Cost**

- **Reduced Fuel Costs**

- **Increased Efficiency**

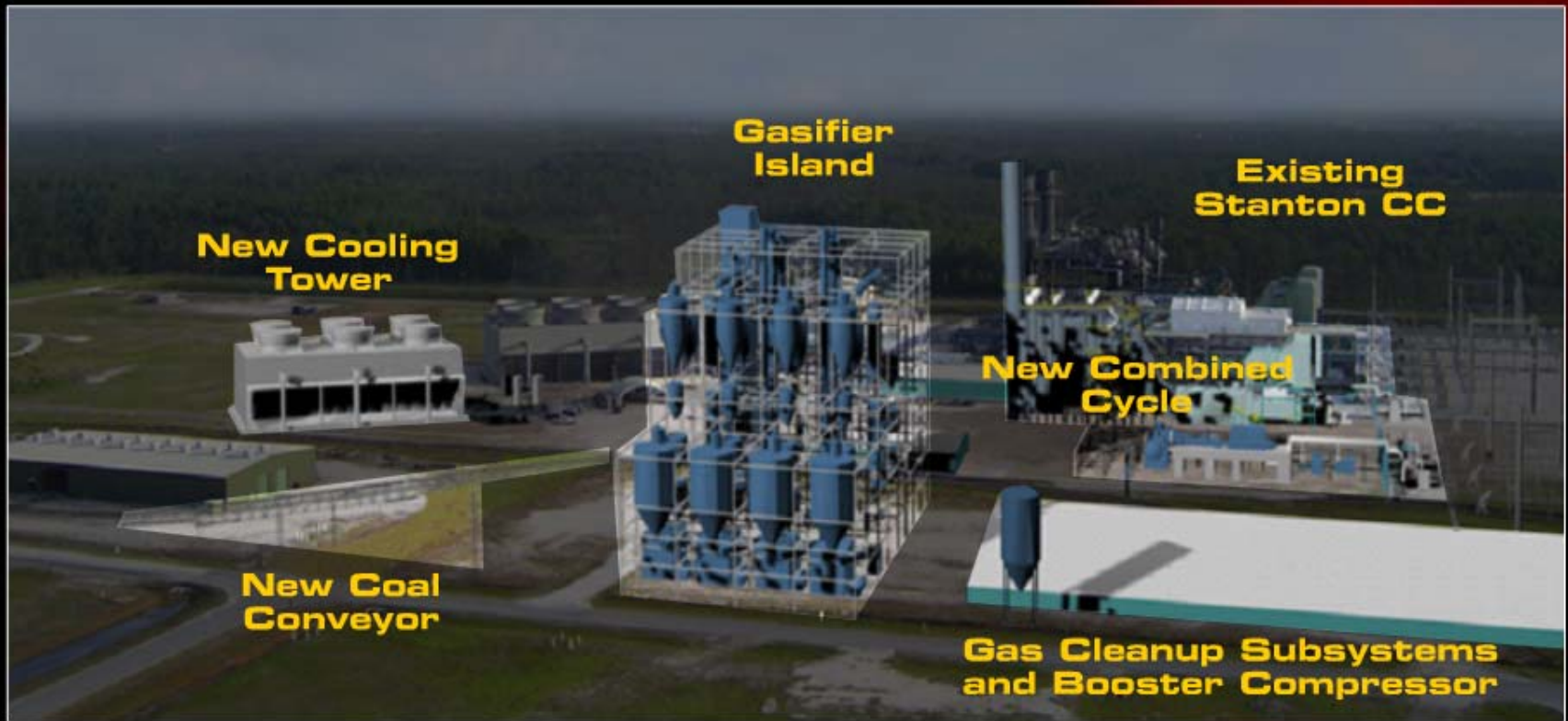
- **Increased Reliability**

- **Ultra-Low Air Emissions**

# Orlando Gasification Project

- **285 MW IGCC**
- **DOE Sponsored**
- **Air-Blown**
- **Powder River Basin,  
Sub-Bituminous Coal**
- **One Transport Gasifier -  
No Required Redundancy**
- **Commercial Operation -  
June 2010**

# Orlando Gasification Project

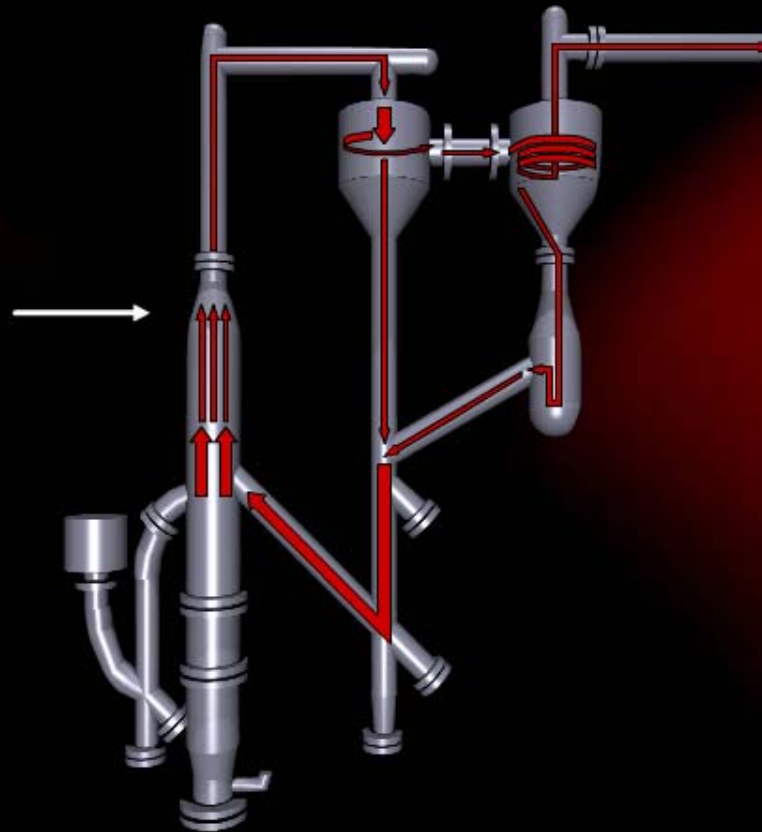


SLIDE QUICK NAVIGATION

# Potential Markets



**Coal**



**Power**



**CTL  
Liquid Fuels**



**Chemicals  
Fertilizers**



**Petro-  
chemicals**

# Coal-to-Liquids



SLIDE QUICK NAVIGATION

# Strategic Direction

- **Joint Southern Company/KBR Short-Term Business Plan Developed**
- **Focus on Select Number of Strategic Projects in Parallel with Orlando**
- **External Marketing Lead for New International Projects - KBR**
- **Southern to Use TRIG™ Technology and Initially Lead External IGCC Marketing Activities Domestically**
- **TRIG™ Design to be Modularized into Standard Units**

# Final Thoughts

- **Mature Technology**
- **Low Temperature, Simple Design**
- **Low Rank, High Ash, High Moisture Coal Compatible**
- **Air-Blown or Oxygen-Blown Designs**
- **Lower Cost Over Conventional Technology/Commercially Available IGCC**
- **High Availability**