

McIlvaine Hot Topic Hour

Phil Amick, Director Gasification Business Development December 12, 2013



A World of **Solutions**





- CB&I wins the 8 month sale process to acquire the E- Gas Technology from the newly formed Phillips 66 Company.
- CB&I (NYSE: CBI) is the most complete energy infrastructure focused company in the world and a major provider of government services.
- One of the most complete providers of services including design, engineering, construction, fabrication, maintenance and environmental services
- E-Gas is a part of the Lummus Technology group within CB&I, which licenses over 75 technologies for refining and petrochemical plants





Technology for Gasification



CB&I Operating Structure

Technology

Engineering, Construction and Maintenance

Fabrication Services

Government Solutions



- Licensed technology
- Engineering / technical services
- Proprietary catalysts
- Specialty equipment
- Consulting services



- Engineering
- Procurement
- Module fabrication
- Construction
- Commissioning



- Modularization
- Fabrication
- Erection
- Engineering



- Program and project
 management
- EPC
- Environmental engineering and consulting
- Emergency response and disaster recovery
- Environmental remediation

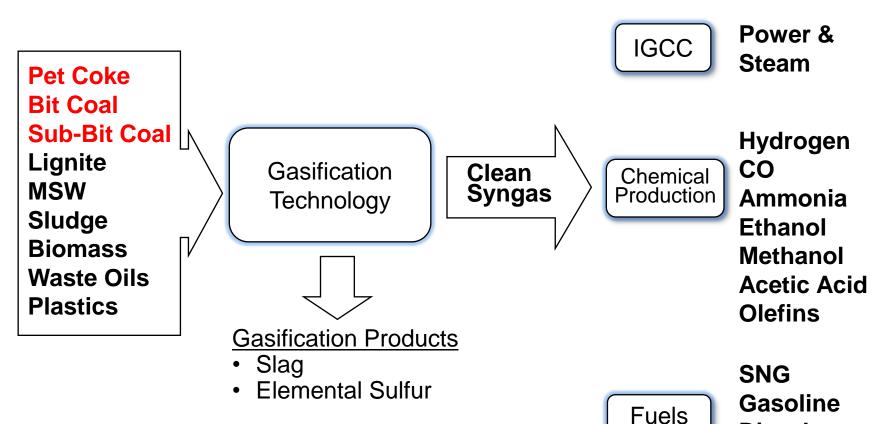
Feedstock Options

Product Options

Diesel

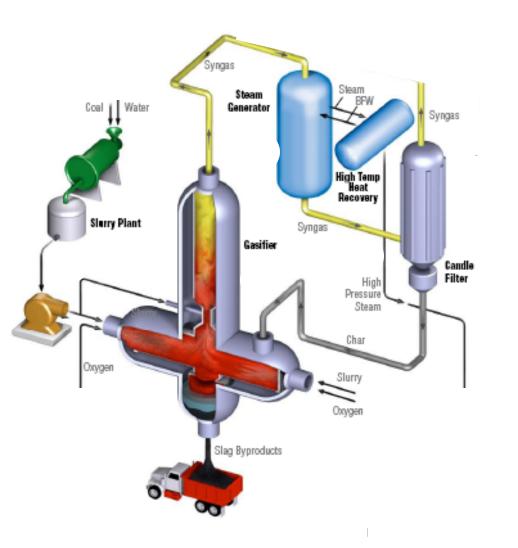
Naphtha

Jet Fuel



E-Gas Feedstocks in RED





ADVANTAGES

Two stage for carbon conversion and heat recovery efficiency

Separate Fire-tube Syngas Cooler generating HP steam

Dry Char Recycle – No Wastewater Generation, No Carbon Lost

No phenolic wastewater creation

Continuous Slag Removal – No Lock-hoppers

Single Train Capacity to 3000 mTPD on bit Coal and Petcoke 4000 mTPD on Sub-Bituminous



Tomorrow's gasification projects are in countries that purchase LNG but have access to coal, particularly as a method to utilize lower rank coals.

High LNG prices driving large energy users to other sources, especially refiners and petrochemical plants

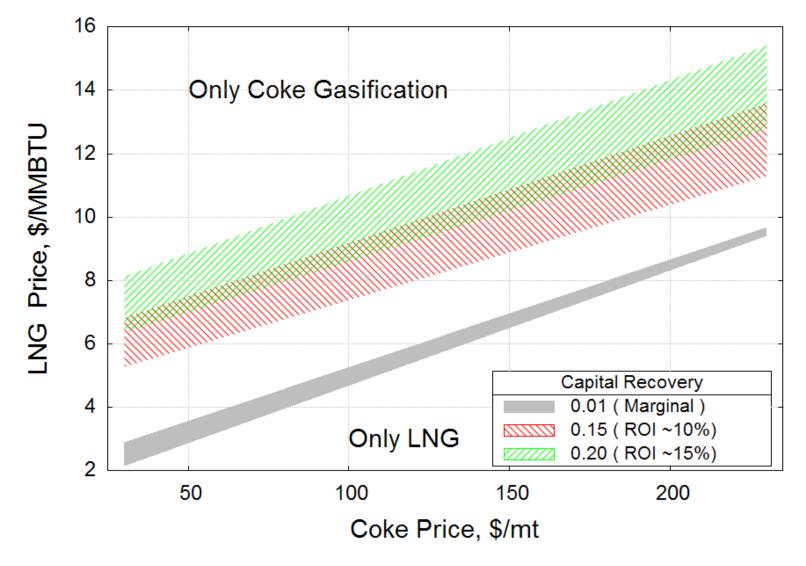
Continuing high crude oil prices are driving GTL and CTL projects, but only a few CTL demos in China are actually happening right now.

Outside of the U.S., coal-based IGCC has become a one-per-country demonstration (Netherlands, Spain, Japan, China, South Korea) but many polygen projects have a power generation component (Reliance, Chinese refineries)

Petcoke gasification is growing because of a glut of petcoke in the market. Surprise interest in the Middle East.

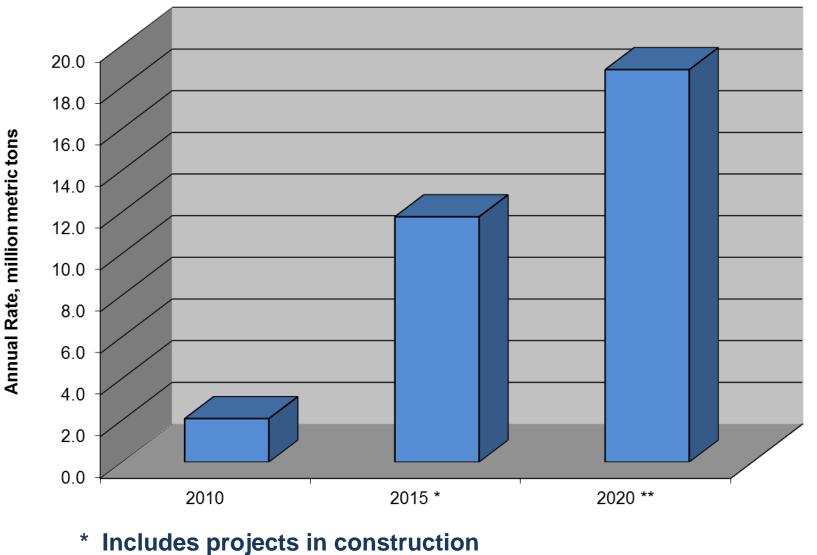
Gasification licensing world is changing with Chinese entries, more lower rank fuel projects





Basis: 320 kbd refinery expansion, 25% taxes, 15 year depreciation

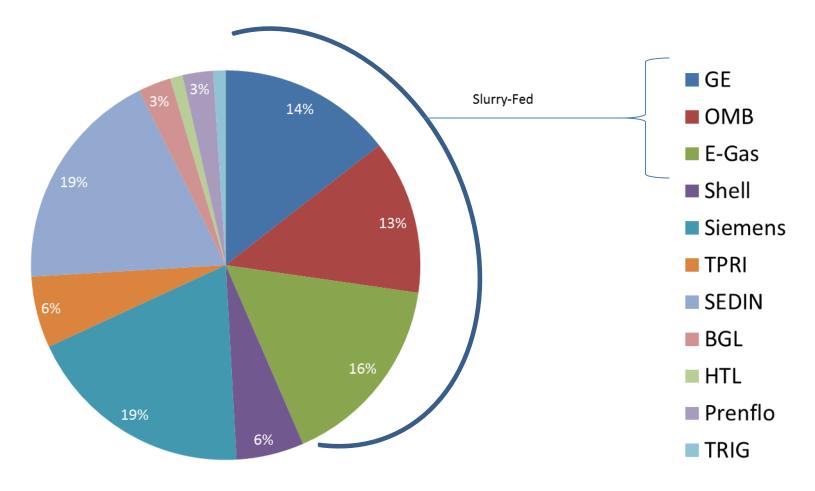




** Includes projects in planning



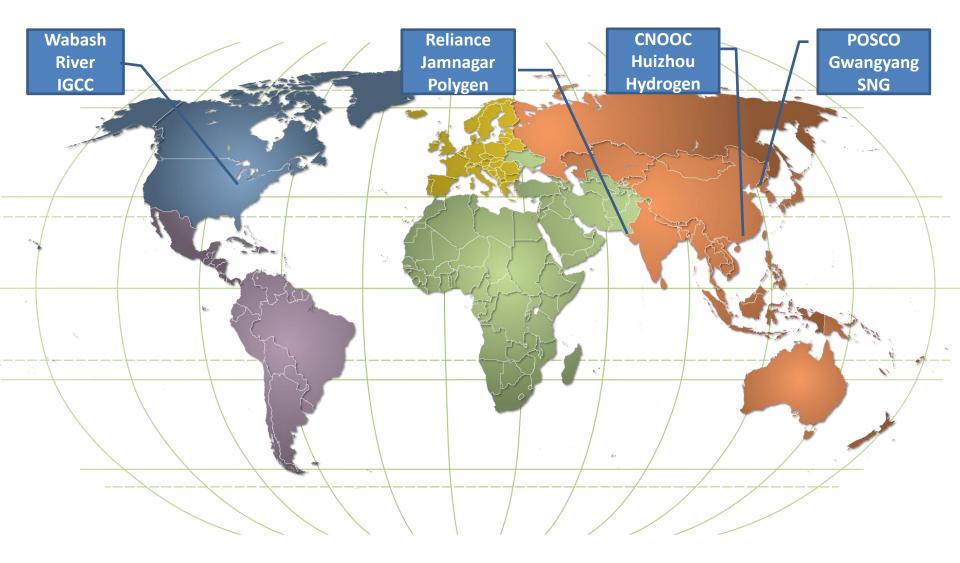
Solid Fueled Gasification Projects, >2000 tpd per train, 2011-2017 Start-up, that have selected technology



Ref: Gasification Technologies Council 'World Gasification Database', 2013



Project Updates





Wabash River IGCC



262 MW IGCC Single train, petcoke Operational since 1995

CB&I provides Operations Management services



POSCO SNG Project at Gwangyang

posco

500,000 mtpy SNG 2+1 trains sub-bituminous coal

Site Photo Sept. 30, 2013



Reliance Industries Jamnagar



Polygen for power, hydrogen, SNG and chemicals 10 + 0 gasification trains Petcoke



Reliance Industries Jamnagar

Now in construction.

E-Gas Proprietary and Restricted Equipment orders placed, long lead deliveries in mid-2014



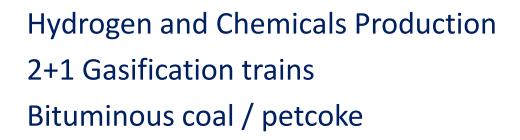






CNOOC Huizhou Refinery

First E-Gas Award at CB&I One of four CB&I technologies licensed to this project









For more information on the E-Gas technology, contact us at the following addresses, write us at E-GasTechnologyInfoRequests@CBI.com or visit www.cbi.com/technologies/gasification-technology

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CB&I has offices, fabrication facilities, and projects throughout the world



This presentation contains forward-looking statements regarding CB&I and represents our expectations and beliefs concerning future events. These forward-looking statements are intended to be covered by the safe harbor for forward-looking statements provided by the Private Securities Litigation Reform Act of 1995. Forwardlooking statements involve known and unknown risks and uncertainties. When considering any statements that are predictive in nature, depend upon or refer to future events or conditions, or use or contain words, terms, phrases, or expressions such as "achieve", "forecast", "plan", "propose", "strategy", "envision", "hope", "will", "continue", "potential", "expect", "believe", "anticipate", "project", "estimate", "predict", "intend", "should", "could", "may", "might", or similar forward-looking statements, we refer you to the cautionary statements concerning risk factors and "Forward-Looking Statements" described under "Risk Factors" in Item 1A of our Annual Report filed on Form 10-K filed with the SEC for the year ended December 31, 2012, and any updates to those risk factors or "Forward-Looking Statements" included in our subsequent Quarterly Reports on Form 10-Q filed with the SEC, which cautionary statements are incorporated herein by reference.

