CONSOL Energy Inc - Corporate Profile
The leading diversified fuel producer in the Eastern United States


CONSOLENGRGY
AMERICA'S ENERGY STARTS HERE.

- Ticker: CNX
- Headquartered in Pittsburgh, Pennsylvania
- Founded in 1860
- 9,164 Employees
- Market Cap = \$7.2 Billion
- EV $=\$ 9.9$ Billion
- 2011 Revenue $=\$ 6.1$ Billion

CNX NYSE


Forbes
100
MOST TRUSTWORTHY COMPANIES


- 4.5 BTs of proven and probable coal reserves
- Raised 2012 estimated coal exports of approximately to 11-12 MTs from 9-11 MTs
- Trimmed 2012 sales guidance by about 1 MTs to 58.9 - 60.9 MTs
- 2Q12 sales guidance of 14.2 - 14.9 MTs


## Natural Gas

- 3.5 Tcfe of proved reserves
- 628,000 gross Marcellus Shale acres in the JV with Noble Energy
- 200,000 gross Utica Shale acres in Ohio in the JV with Hess Corporation
- 2Q12 production guidance of 37-38 Bcf
- $50 \%$ of shale wells targeting liquids-rich strata



## - Safety

- CONSOL has invested over $\$ 1$ billion since 2006 on coal-related safety projects
- Commitment to "Absolute Zero"

- Compliance
- Continuous Improvement


## 2012 Marcellus Shale Drilling Program: 91 Wells



CONSOL Drills in Dry Gas

- 13 wells in Central Pa.
- 41 wells in Southwest Pa.
- 6 wells in Northern W. Va.


## Noble Energy Drills in Wet Gas

- 31 wells in West Virginia

CONSOL Energy \& Hess Corporation JV


Sold 50\% of 200,000 Gross Ohio Utica

- Cash: $\$ 60$ Million
- Carry: $\$ 554$ million covering 50\% of CNX's share of drilling and completion costs.

Partnered with top tier Oil Operator with Marketing History

Structured as an Exploration Play
Raises CONSOL's Exposure to Liquids/Oil
Targeting 22 gross wells in 2012
First well to be completed in April

## Gas Operations: Horizontal Rigs Running



## Some Factors Driving Our

## Businesses

- Over-supply of natural gas and resulting low price, partly driven by warm winter and slow economy, but mostly by technology improvements
- Expected plentiful future supply and low or moderate future price for natural gas
- Decreasing coal demand, and thus selling price
- Recession-driven low demand for electric energy and thus, for thermal coal
- Recession-driven low demand for world-wide steel and metallurgical coal
- Loss of 40-60 GWe of coal-fired power plant capacity by 2016, largely due to EPA regs ( GHG NSPS, MATS, CSAPR/CAIR, 316b, Coal Ash, TR2, TR3, etc.) and low forecasted gas price
. Prevention of new coal-fired power plants for next ~10 years
- Mining costs increasing, largely due to MSHA and EPA regs
- Water sourcing, use, treatment and disposal becoming increasingly important


## CONSOL R\&D Research Focus 2009

- Coal-fueled power plant emissions reduction
- Greenhouse gas emissions control
- Ambient air quality
- Waste coal utilization


## CONSOL R\&D Research Focus 2012

- Coal-fueled power plant emissions reduction
- Greenhouse gas emissions control
- Ambient air quality
- Waste coal utilization
- New focus on reducing operating costs
, Substitution of natural gas for liquid fuels
, Water use and treatment, including byproduct use
, Technical support to E\&P and mid-stream operations


## Substitution of Natural Gas for

## Liquid Fuels

- Currently converting drilling rigs to dual-fuel operation (LNG or field gas + diesel fuel)
- Frac pumper trucks likely next target...
- ...then off-road vehicles
- ...then highway vehicles (probably bi-fuel)
- Long-term target: towboats



## Water Use and Treatment, Including

 By-Product Use- Control of sulfate in AMD for use as frac water
- Novel evaporative methods to treat saline waters
- Use of salt and other byproducts from treatment systems
- Tech support to evaluate water sourcing, recycle,
 disposal options, corrosion, fouling, etc.


## Additional Projects Relevant to O\&G

- Enhanced coal bed methane recovery with simultaneous $\mathrm{CO}_{2}$ sequestration (with DOE)
- $\mathrm{CO}_{2}$-Enhanced recovery of wet shale gas (with Virginia Tech and DOE)
- Electric power generation from waste methane


## Thank You

