

Gas And Renewables:
Building A Cleaner Energy Bridge to a
Sustainable Fuels Future

UNCONVENTIONAL NATURAL GAS AND THE ENVIRONMENT

Florida International University

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Miami, FL | November 8, 2010



#### **Future Oriented Information**

In the interest of providing Encana Corporation ("Encana" or the "Company") shareholders and potential investors with information regarding the Company, its subsidiaries, including management's assessment of the Company's future plans and operations, certain statements and graphs throughout this presentation contain "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995 or "forward-looking information" within the meaning of applicable Canadian securities legislation. Forward-looking statements in this presentation include, but are not limited to, statements and tables with respect to: projection to doubling production per share over the next five years, including projected production from various resource plays in the U.S. and Canadian divisions; estimated drilling inventory and locations; projected 2010 exit rate production; expected 2010 supply costs; expected increase in North American gas supply and demand per day; expected long-term price of natural gas and years of supply; demand opportunities for natural gas in power generation and transportation; projected North American opportunities for natural gas; estimated reductions in emission with greater use of natural gas in transportation and power generation; estimated Canadian and U.S. fuel displacement potential; future Encana projects to support increase in demand for natural gas; and expected areas where Encana can expand gas demand North America.

Readers are cautioned not to place undue reliance on forward-looking statements, as there can be no assurance that the plans, intentions or expectations upon which they are based will occur. By their nature, forward-looking statements involve numerous assumptions, known and unknown risks and uncertainties, both general and specific, that contribute to the possibility that the predictions, forecasts, projections and other forward-looking statements will not occur, which may cause the company's actual performance and financial results in future periods to differ materially from any estimates or projections of future performance or results expressed or implied by such forward-looking statements. These assumptions, risks and uncertainties include, among other things: volatility of and assumptions regarding oil and gas prices; assumptions based upon the company's current guidance, as well as assumptions based upon 2010 Encana guidance; fluctuations in currency and interest rates; product supply and demand; market competition; risks inherent in the company's and its subsidiaries' marketing operations, including credit risks; imprecision of reserves estimates and estimates of recoverable quantities of natural gas and liquids from resource plays and other sources not currently classified as proved, probable or possible reserves or economic contingent resources; marketing margins; potential disruption or unexpected technical difficulties in developing new facilities; unexpected cost increases or technical difficulties in constructing or modifying processing facilities; risks associated with technology; the company's ability to replace and expand gas reserves; its ability to generate sufficient cash flow from operations to meet its current and future obligations; its ability to access external sources of debt and equity capital; the timing and the costs of well and pipeline construction; the company's ability to secure adequate product transportation; changes in royalty, tax, environmental, greenhouse gas, carbon, accounting and other laws or regulations or the interpretations of such laws or regulations; political and economic conditions in the countries in which the company operates; terrorist threats; risks associated with existing and potential future lawsuits and regulatory actions made against the company; and other risks and uncertainties described from time to time in the reports and filings made with securities regulatory authorities by Encana. Although Encana believes that the expectations represented by such forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct. Readers are cautioned that the foregoing list of important factors is not exhaustive. Forward-looking statements with respect to anticipated production, reserves and production growth, including over the next five years, are based upon numerous facts and assumptions which are discussed in further detail in this presentation, including a projected capital program averaging approximately \$6 billion per year from 2011 to 2014, achieving an average rate of approximately 2,500 net wells per year from 2011 to 2014, Encana's current net drilling location inventory, natural gas price expectations over the next few years, production expectations made in light of advancements in horizontal drilling, multi-stage fracture stimulation and multi-well pad drilling, the current and expected productive characteristics of various existing and emerging resource plays, Encana's estimates of proved, probable and possible reserves and economic contingent resources, expectations for rates of return which may be available at various prices for natural gas and current and expected cost trends. In addition, assumptions relating to such forward-looking statements generally include Encana's current expectations and projections made in light of, and generally consistent with, its historical experience and its perception of historical trends, including the conversion of resources into proved reserves and production as well as expectations regarding rates of advancement and innovation, generally consistent with and informed by its past experience, all of which are subject to the risk factors identified elsewhere in this presentation.

Forward-looking information respecting anticipated 2010 cash flow for Encana is based upon achieving average production of oil and gas for 2010 approximately 3.365 Bcfe/d, commodity prices for natural gas of NYMEX \$5.00/Mcf, crude oil (WTO) \$75 for commodity prices and an estimated U.S./Canadian dollar foreign exchange rate of \$0.94, net divestitures of \$0.0 to \$1.0 billion, and an average number of outstanding shares for Encana of approximately 740 million. Furthermore, the forward-looking statements contained in this presentation are made as of the date of this presentation, and, except as required by law, Encana does not undertake any obligation to update publicly or to revise any of the included forward-looking statements, whether as a result of new information, future events or otherwise. The forward-looking statements contained in this presentation are expressly qualified by this cautionary statement.



#### Who is Encana?

- Leading North American energy company
  - Calgary, Alberta
  - Denver, Colorado
- 100% production and reserves located in North America
- One of the largest producers of North American natural gas
  - Current Production: 3,300 MMcfe/d
  - 23,000 Net Drilling Locations\*
    - Five year plan to double production per share
  - \$25B Market Capitalization (July 2010)

\*(based on 1P & 1C only)





## North American Natural Gas Supply. . .

The **New** Encana: the clear energy choice

## . . . A profound and material change



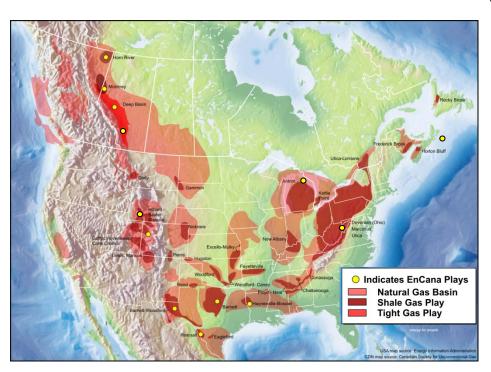


## Vast Energy Resource in North America

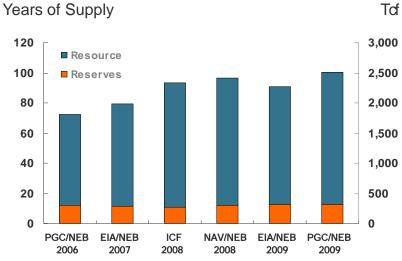
Technology Continues to Unlock Shale Gas

North American Natural Gas Basins

Abundant and Widespread



#### North America Resource Estimates



- ~2,500 Tcf of Total Resource
- > 100 Year Supply at 70 Bcf/d
- >70 Year Supply at 100 Bcf/d

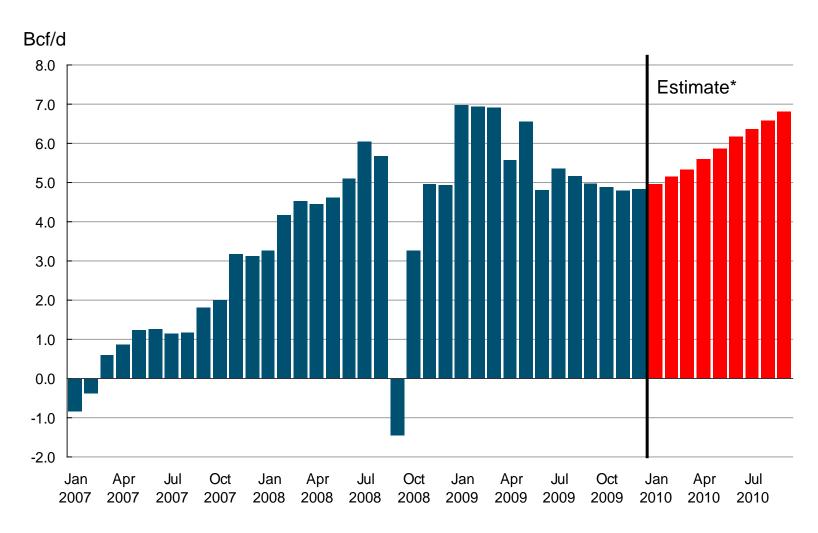
Target New Demand Market 25 Bcf/d or 30% Increase



Sources: EIA, CSUG, IHS, Encana

### U.S. Supply Growth

Increase in Dry Gas Production Relative to December 2006





## Lower 48 Weekly Rig Counts

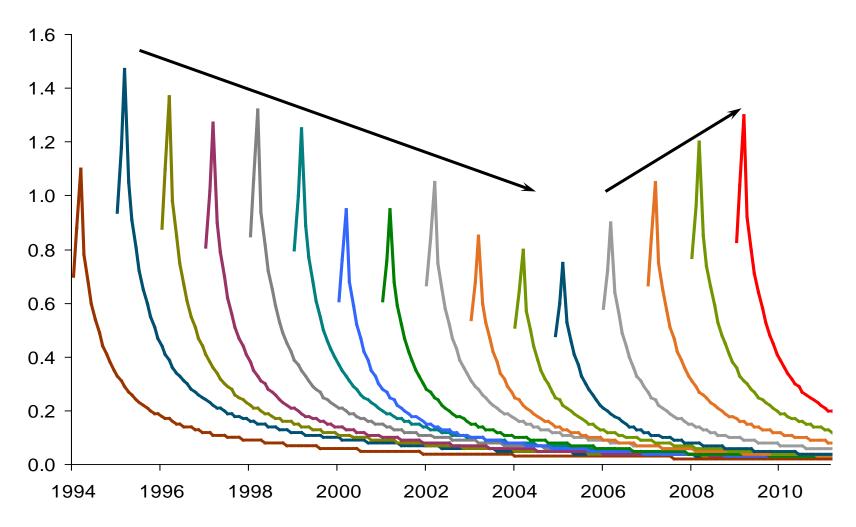
The majority of the increased rig count since summer 2009 has been in horizontal drilling—up nearly 100%



Source: Baker Hughes, Smith Bits

### Increase in Initial Production Rates

The Result of Shale Development



Source: IHS and Encana



## North American Natural Gas Prices. . .

The **New** Encana: the clear energy choice

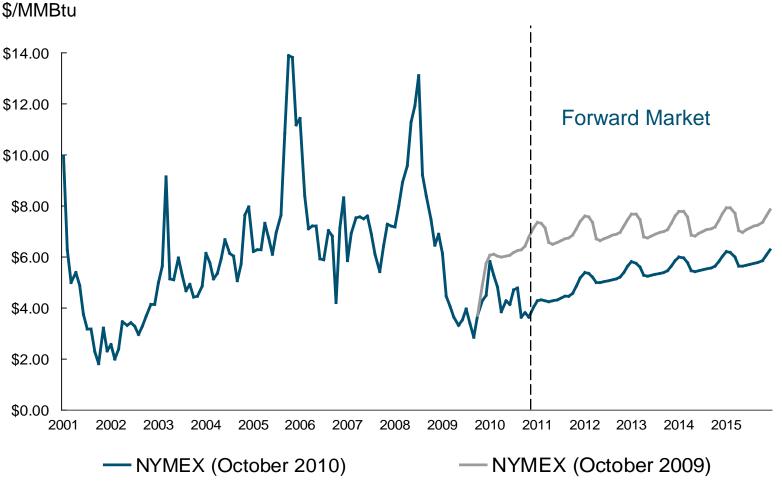
. . . An affordable choice





#### NYMEX Prices Shifted Down with Abundance of Supply

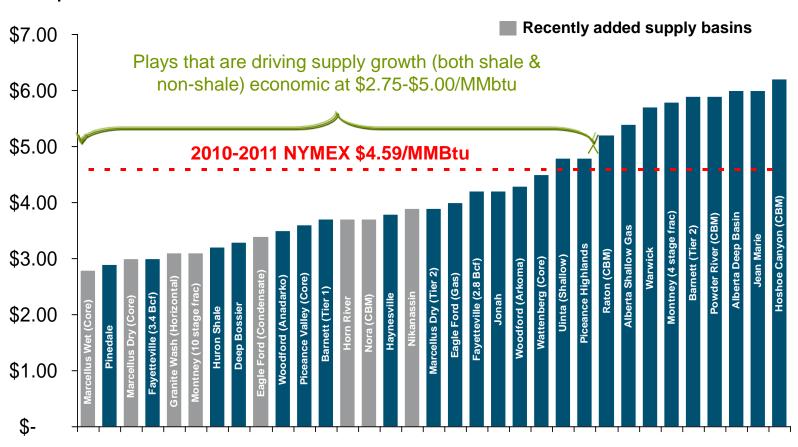
Supply and demand imbalances cause large variations in price. However, the long-term trend is toward the cost of producing unconventional supply.



Source: CME Group, Prices as of October 11, 2010

## Supply Cost Comparison of Key Basins

#### Required NYMEX Natural Gas Price for 10% IRR



Note: Excludes land cost, G&A and midstream costs.

Source: Company data, Morgan Stanley Research (August 16, 2010).



# Natural Gas – Providing Significant Energy Options . . .

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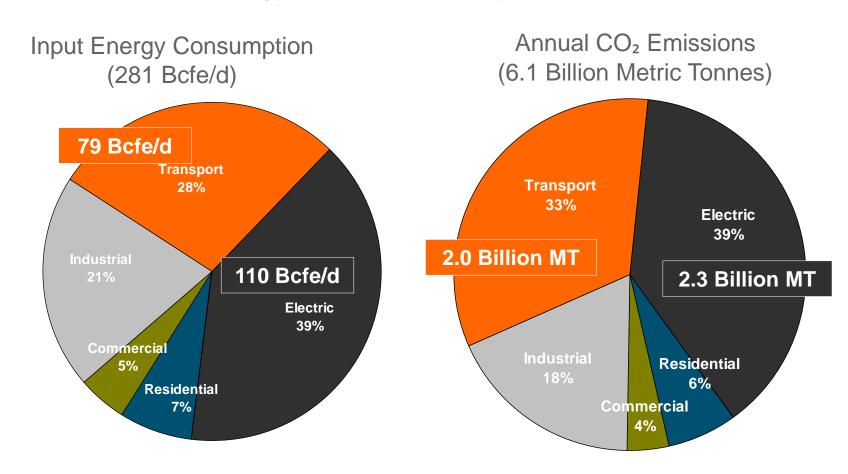
## ... In Transportation and Power Generation Sectors





### Natural Gas Can Make the Greatest Impact

Canada and U.S. Energy Consumption by Sector

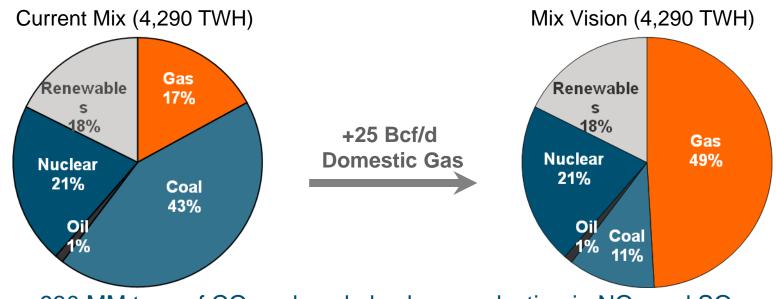


Need to focus on Electric Power and Transportation Sectors (70% of total emissions) to move the "Emission Reduction Needle"

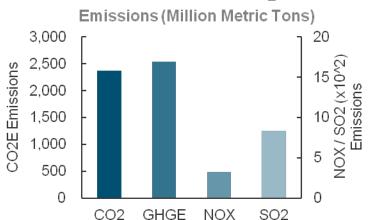
Sources: EIA AEO 2010 Preliminary Release, CANSIM, Environment Canada, ECA Calculations

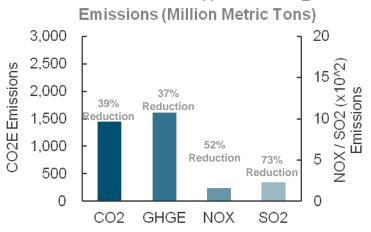
### Canada and U.S. Electrical Generation

What if 25 Bcf/d of additional Natural Gas is used?



930 MM tons of CO<sub>2</sub> reduced plus large reduction in NO<sub>X</sub> and SO<sub>2</sub>

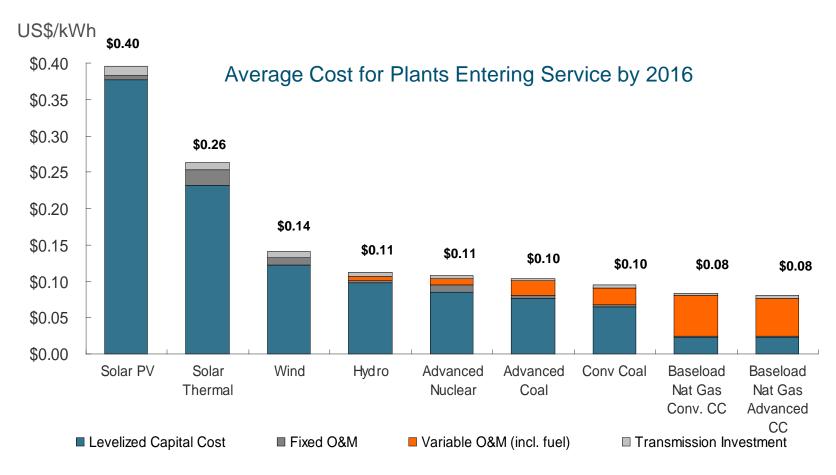






#### Natural Gas is the Most Affordable Choice

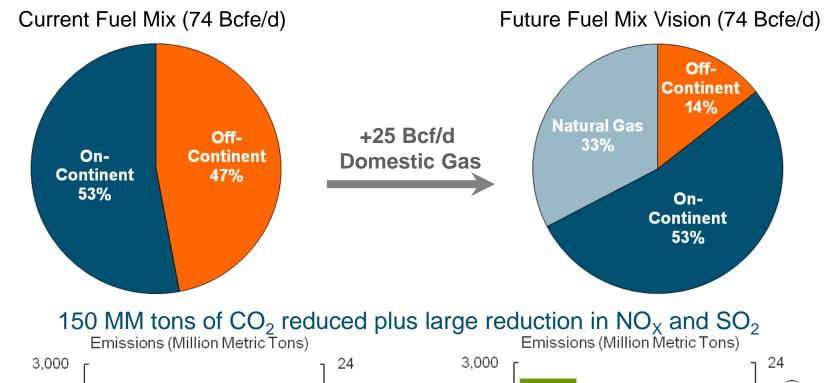
#### Levelized Cost Profile of New Generation

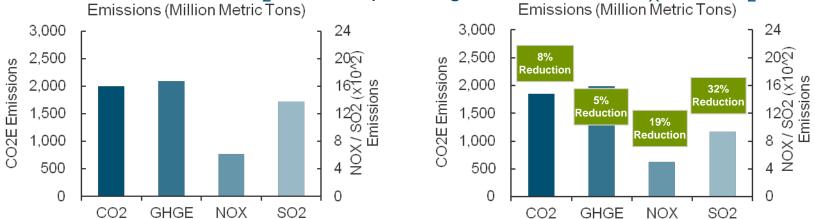




## Canada and U.S. Transportation

What if 25 Bcf/d of additional Natural Gas is used?







#### Natural Gas for Power Generation

Electricity for a Clean, Cost Effective, Reliable Future







#### The Natural Gas Power Plan...

- Improve air in near-term with significant reductions in air pollutants/GHG
- Partner natural gas with renewables
- Increase Use of Distributed Generation
  - Reduce transmission requirements
  - Improve grid reliability
  - Cogeneration opportunities for industrial applications

#### **Benefits Society...**

- Promotes economic development
- Supports compliance with Clean Air Act
- Enhances human health
- Provides government revenues



#### Natural Gas for Transportation

Market Segmentation









CNG

#### **CITIES**

- Municipal government fleets, light duty and medium duty vehicles
- Commercial fleets and personal light and medium duty vehicles
- Airport and port authorities

#### **CORRIDORS**

- Heavy duty vehicle freight and goods transportation
- Home base & mid-point fueling patterns (refuse trucks, buses, etc.)
- Transient and varied fueling patterns

#### **GAS FACTORY**

- Drilling rigs and equipment
- Service company light duty vehicle fleets
- Field storage and fuel deployment solutions required

#### COMMERCIAL

- Extra heavy duty "off-road" vehicles
- Rail, mining, marine, military, and construction services
- Heavy duty engine solutions required

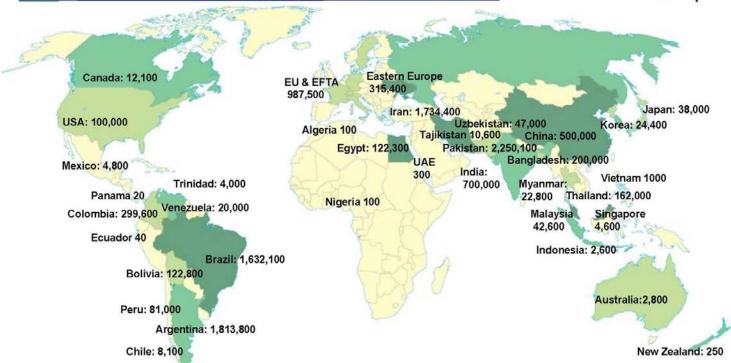


#### Worldwide Natural Gas for Transportation

20% Compounded Annual Growth Rate (6 years)

11.3 Million NGVs worldwide in late 2009 (4 million at the end of 2004)





10,585,800 cars, 396,600 buses, 203,700 trucks, and 87,400 other vehicles now running on NG/ biomethane, using 39 billion Nm3 of methane annually (33.7 Mtoe). A total of 17,000 filling stations worldwide.

Source: NGVA Europe & The GVR



### Natural Gas Vehicles and Infrastructure Today

#### **About Natural Gas Vehicles...**

- 11 million NGVs Worldwide 110,000 in U.S.
- 1100 Stations in U.S. half open to public
- 30 different manufacturers produce 100 models of light, medium and heavy-duty vehicles and engines in the U.S.
- Natural gas costs, on average, one-third less than conventional gasoline at the pump

#### **Environmental Benefits of NGVs...**

Replacing a typical older in-use vehicle with a new NGV provides the following reductions in exhaust emissions of:

- Carbon monoxide (CO) by 70 percent 90 percent
- Non-methane organic gas (NMOG) by 50 75 percent
- Nitrogen oxides (NOx) by 75 95 percent
- Sulfur dioxide (SO<sub>2</sub>) by 85 99 percent
- Carbon dioxide (CO<sub>2</sub>) by 20 30 percent



### Natural Gas for Transportation

#### Impact for Cities

- Transit Buses
  - \$10,000 \$15,000 fuel savings per year per bus
  - Major North American (NA) Cities using NG buses:
    - Los Angeles, New York, Phoenix, Washington, Atlanta, Boston, Fort Worth, Dallas, Cleveland, El Paso, Tucson, Las Vegas, Seattle, Denver, Vancouver
- Refuse Trucks
  - \$8,000 \$12,000 fuel savings per year per truck
  - Major NA Cities using NG for refuse transit:
    - Burbank, Boise, Culver City, Fresno, Phoenix, Sacramento, Santa Monica, New Haven, Seattle, Los Angeles, Bridgeport, Montgomery, San Diego, Long Beach,, Palo Alto, Bakersfield, San Antonio, Austin, Philadelphia, Atlantic City, Denver
- Fleet Trucks, Vans, Cars
  - \$3,000 \$5,000 fuel savings per year per truck
  - Many North American municipalities using NG vehicles









### Natural Gas . . .

The **New** Encana: the clear energy choice

. . . A responsible choice





## Regulatory Environment & Challenges

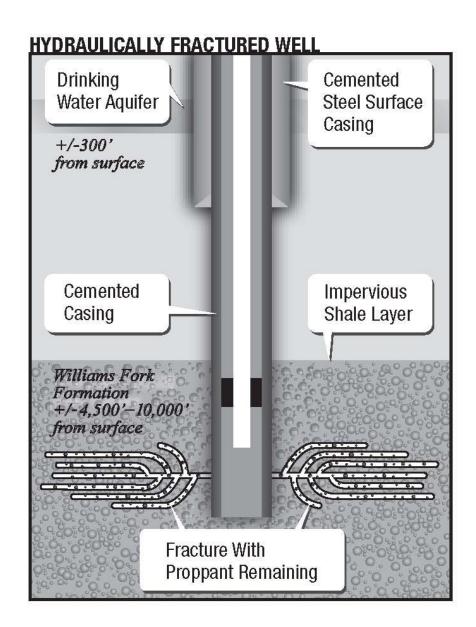
- Fracture stimulation is safe and environmentally benign
- Water management is an integral element of shale gas development
- Gas factory shale development minimizes land impact





## Hydraulic Fracturing and Wellbore Design

- Hydraulic Fracturing Highly Regulated by States
- •Groundwater Protection Starts with Effective Wellbore Design
- Fracturing Takes Place Well Below Fresh Water Aquifers





## Water Usage Intensity: The ability to generate energy equivalent (MMBTU) from a gallon of water . . .

Energy Source	Water Gallons per MMBTU Produced	
	Low	High
Deep Shale Natural Gas	.6	6
Nuclear (uranium ready to use in power plant)	8	14
Conventional Oil	8	20
Coal Gasification - Synfuel	11	26
Coal (ready to use in power plant)	13	32
Oil Shale	22	56
Tar/Oil Sands	27	68
Fuel Ethanol From Corn	2,510	29,100
Biodiesel From Soy	14,000	75,000

#### Gas Factories – Optimizing Efficiency

Achieving Economies Of Scale Across Our Portfolio

Concentrated resource + Pad drilling + Manufacturing practices = Gas factory

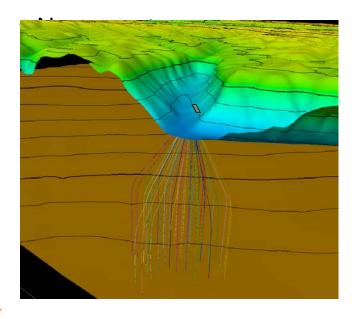
- Innovative
- Simultaneous operations
- Reduce costs
- Improve efficiencies
- Reduce surface disturbance

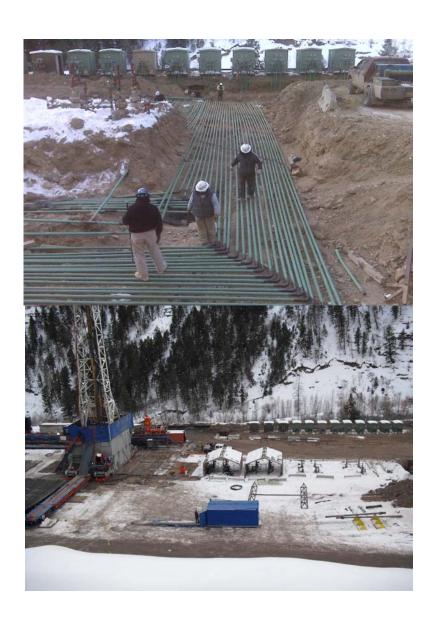




## Piceance Gas Factory Multi-Well Pad Drilling

- 52 well pad
- 4.2 acres
- 9 production meter houses
- 3 gas lift meter houses
- No tanks







## Piceance Gas Factory Results

- Reduce truck trips >50,000/year
- Reduce pad-to-pad rig moves
- Recycle > 90% of produced water
- Reduce drilling & completion cycle time
- Optimize frac efficiency
- Optimize production via gas lift
- Expanding utilization throughout Encana







#### Commitment to Responsible Development



- Encana's commitment
  - People
  - Safety
  - Environment
  - Engagement
  - Community Investment
- Encana actively working with regulators to:
  - Increase transparency
  - Improve public education
  - Achieve higher safety standards
  - Reduce surface footprint
  - Lower carbon footprint



## Natural Gas . . . Energy Options Going Forward



## Supplemental Slides

The **New** Encana: the clear energy choice





## Piceance Gas Factory

- Multi-well pad drilling minimize footprint
- Simultaneous operations
- Fluid management
  - Fracing
  - Gathering
- Efficiency
  - Reduce cycle times
  - Reduce costs
  - Optimize production





## Fit-For-Purpose Rigs

- Multi-well pad drilling
- Simultaneous operations
- Larger pumps
- Self skidding system
- Top drive
- Closed-loop mud system





### Piceance Gas Factory

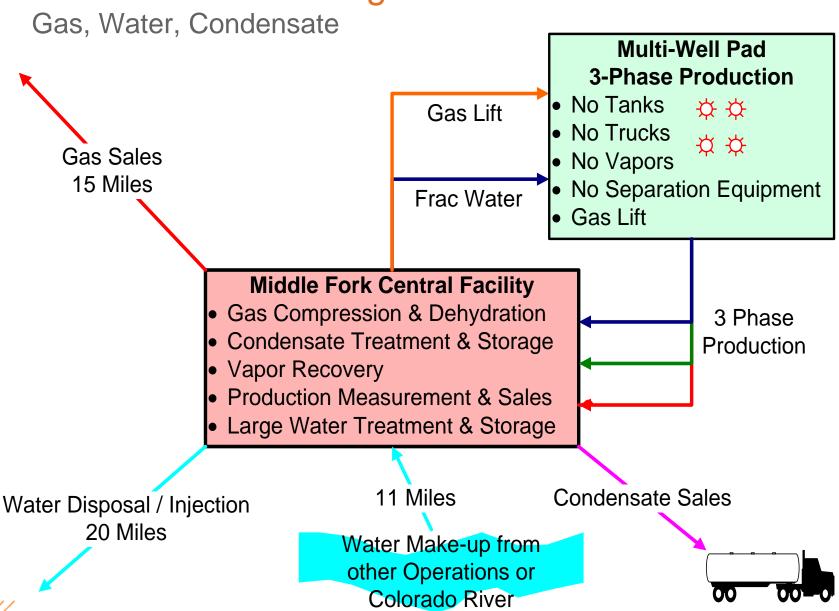
#### Middle Fork Central Facility

- 17 miles of pipeline
  - 3-phase gathering
  - Water distribution
  - Gas lift
- 217,000 barrels water storage
- 4 high pressure water distribution pumps
- 60,000 hp gas compression
- 360 MMcf/d capacity





## 3-Phase Fluid Management



## COLORADO AND THE NATURAL GAS INDUSTRY

**≻137,000 JOBS** 

**≻6% OF TOTAL EMPLOYMENT** 

>\$8.4 BILLION EMPLOYMENT INCOME

>\$18.3 BILLION IN VALUE ADDED ECONOMIC OUTPUT



- IHS Global Insight

Another 33,557 are indirect Colorado jobs, meaning that they are jobs dependent upon natural gas, but outside the industry, including pipeline construction, offshore platform construction, seismic services, and field machinery, among others.

Finally, there are 73,411 induced Colorado jobs – those that are created by the expenditures of direct and indirect employees of the natural gas industry.

#### Total Natural Gas Employment (ranked by state)

1	Texas	1,269,130
2	Louisiana	266,591
3	California	255,214
4	Oklahoma	174,519
5	COLORADO	137,726
6	Wyoming	62,306
7	Pennsylvania	53,554
В	New Mexico	46,062
9	Illinois	45,790
0	Ohio	40,374



AMERICA'S NATURAL GAS ALLIANCE |

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## AMERICA AND THE NATURAL GAS INDUSTRY

➤ 2.8 MILLION JOBS INDIRECTLY SUSTAINED

**▶622,000 DIRECT JOBS** 

> \$70 BILLION DIRECT EMPLOYMENT INCOME

>\$172 BILLION IN VALUE ADDED U.S. ECONOMIC OUTPUT

NATURAL GAS
WORKING FOR AMERICA

THE NATURAL GAS INDUSTRY SUPPORTS MORE THAN
2.8 MILLION
JOBS

#### A CLEAR CONTRIBUTION

#### TO AMERICA'S ECONOMIC SUCCESS

The contribution of natural gas jobs to America is clear. Natural gas not only provides the United States with a clean, abundant, and reliable energy source that is domestically produced, but also with millions of good-paying American jobs and billions in revenue.

According to an in-depth economic analysis completed by IHS Global Insight, the natural gas industry supports more than 2.8 million jobs in the United States.

The economic impact of the industry is notable as well. Natural gas contributed \$385 billion to our nation's economy in 2008 alone.

Finally, the benefit of direct employment by the natural gas industry is unmistakable:

- Natural gas companies directly employed roughly 622,000 Americans in 2008
- The natural gas industry indirectly sustained almost 2.2 million additional jobs the same year
- The industry generated over \$70 billion in direct income for workers
- Just the direct jobs had an overall value-added impact of \$172 billion on the U.S. economy, including:
- » Salaries
- » Benefits
- » Expenditures and savings funded from compensation and revenues
- » Federal, state, and local tax revenue
- » Royalties to landowners, federal agencies

Texas, Louisiana, Oklahoma, California, and Colorado were the five states with the highest natural gas employment. Though the southwestern and western United States are the regions that benefit the most from direct and indirect natural gas jobs, other regions have had tremendous growth as well.

#### NATURAL GAS IMPACT ON THE U.S. ECONOMY

	DIRECT	INDIRECT	INDUCED	TOTAL		
EMPLOYMENT						
2008	622,411	723,102	1,482,801	2,828,314		
2007	586,501	693,957	1,412,041	2,692,499		
2006	517,233	620,061	1,282,248	2,419,542		
LABOR INCOME BILLIONS OF DOLLARS						
2008	69.9	48.9	62.5	181.2		
2007	66.1	47.0	59.5	172.6		
2006	60.1	42.6	54.0	156.7		
VALUE ADDED BILLIONS OF DOLLARS						
2008	172.1	92.5	120.1	384.7		
2007	161.9	88.8	113.8	364.4		
2006	146.6	81.1	103.3	330.9		
Note: Numbers may not add to total due to rounding.						

When you look at the number of employees engaged directly or indirectly in providing natural gas to consumers, you get a very real sense of the importance of natural gas to our country.

IHS Global Insight

POWERING OUR NATION'S CLEAN ENERGY FUTURE

