Energy Independence: Winners and Losers

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June 6, 2013
Introduction

• Mayer Brown
• University of Michigan Law School
• Energy Finance
Topic Introduction

The Pursuit of U.S. Energy Independence: Likely Winners and Losers in the Political Fights over the Environmental Impact of Fracking in the Production of Shale Oil and Transporting Oil from Canadian Tar Sands through the Keystone Pipeline
Winners
Winners

“WHERE THERE’S MUCK, THERE’S BRASS”

Energy is a dirty business with huge profit potential
The United States was self-sufficient in energy until the late 1950s when energy consumption began to outpace domestic production. At that point, the Nation began to import more energy to meet its needs. Since 2007, energy imports have declined each year, except for a slight increase in 2010. Most of the imported energy was petroleum. In 2011, net imports (imports minus exports) accounted for 19 percent of all primary energy consumed.

U.S. Energy Information Administration, Annual Energy Review, Table 1.1.
Hydro Fracking Introduction

Hydraulic Fracturing

Hydraulic fracturing, or "fracking," involves the injection of more than a million gallons of water, sand and chemicals at high pressure down and across into horizontally drilled wells as far as 10,000 feet below the surface. The pressurized mixture causes the rock layer, in this case the Marcellus Shale, to crack. These fissures are held open by the sand particles so that natural gas from the shale can flow up the well.

The shale is fractured by the pressure inside the well.

Source: ProPublica.
Impact of Fracking / Keystone Pipeline on US Energy Needs

U.S. Rep. Gene Green for Texas' 29th congressional district states, “The U.S. has consumed approximately 18 million barrels per day of petroleum products per year over the last 10 years. North American oil sands are a vital source of energy for the U.S. It is imperative for the U.S. to diversify its energy sources by exploring alternatives such as the oil sands in Canada.”

Figure 91. Natural gas production by source, 1990-2040 (trillion cubic feet)

Shale gas production, which grows by 113 percent from 2011 to 2040, is the greatest contributor to natural gas production growth. Its share of total production increases from 34 percent in 2011 to 50 percent in 2040.

Source: EIA
Investment in US Energy Assets

Summary Table of Investments and Markets

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<th>2011</th>
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<td>Global investments in E&amp;P</td>
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<td>North America</td>
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<td>Rest of the world</td>
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<td>Upstream markets analysed</td>
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<td>Drilling market (*)</td>
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<td>(* including equipment for servicing the wells)</td>
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Sources:
- Upstream oil sector, IFPEN from:
  - Global investments: Barclays, DTI, NPD, DEA, figures published by various companies and States, IFPEN forecasts
  - Geophysical market: IHS, Energy First Break, Spears & Associates, IFPEN
  - Drilling market: Baker Hughes, IHS energy, Offshore Rig Locator, Spears & Associates, IFPEN
  - Offshore construction market: IHS, energy, Spears & Associates, IFPEN
- Downstream oil sector: IFPEN from HPI Market data, IFPEN forecasts

Increased Global Investment in E&P

![Graph showing increased global investment in E&P]

Impact on Pricing

Where are prices going?
Impact on Power Producers

Low natural gas prices have a tangible impact on power production, driving many producers of electricity away from coal and renewable resources and towards natural gas.
Winners and Losers

• Winner – midstream processors who need to handle the increase in production

• Losers – environmentalists (so long as there’s no catastrophe)