

Tomorrow's Energy
Today's Income:
Finding Opportunities In A Low
Interest Rate Environment

Fracking

America's Alternative Energy Revolution





Fracking

- History
- Current Status
- A Few Basics
- Investing in Energy
- Environmental Issues
- Policy Issues
- Q & A

History

- Experiments began in 1947
- Success by 1998: George Mitchell
- 2.5M wells have been fracked in U S: 60% of all wells
- Hydraulic fracturing has added to US inventory:
 - 9 Bbbls of oil
 - 700Tcf of gas
 - Industry employment
increased by 27% from 2010 to 20142
virtually all of the net employment gain in U S

Current Status

- Six major fields - independently developed
 - Barnett 119,000 jobs; \$100B economic activity
 - Bakken 214,000 jobs; \$12B
 - Haynesville 100,000 jobs; \$40B
 - Fayetteville 28,000 jobs; \$22B
 - Marcellus 65,000 jobs; \$11B
 - Utica 13,000 jobs; \$1.7B
 - Eagle Ford 12,000 jobs; \$3B
- Man Bites Dog?
 - Federal government vs. local, state regulators, legislators



A Few Basics

- E & P: Exploration and Production
 - Find it, extract it
- Midstream
 - Pipe it
- Downstream
 - Refine, store and ship it
- Majors and Independents
 - Whose on First?
 - Suppliers

The Process

- E & P
 - Find it, size it, drill it, produce it
- Midstream
 - Pipelines; storage; separation; forwarding
- Downstream
 - Refine, distill, store

Investing in Energy

- Information Sources
 - www.mlpdata.com
 - www.finviz.com
 - www.quantumonline.com
- Formats
 - Direct security ownership
 - Stocks or bonds
 - Indirect Ownership
 - ETFs
 - ETNs
 - CEFs
 - Mutual funds

Investment Criteria

- Income vs. Growth
 - Investing upstream: growth emphasis
 - Investing midstream & downstream: income emphasis
- Tax Issues
 - K-1 vs. 1099
- Leverage Issues
 - Enhances yield, at risk of capital
- Yield
 - Pure distribution rights vs. enhanced yield
- Expenses
 - Portfolio, management, market, debt, distribution rights
- Risks: macro, industrial, political, portfolio

Portfolio Design Opportunities

- Build a \$1M Retirement Portfolio with 5% Yield
 - 70% to your design criteria = 4%
 - 30% to energy stocks = 7%
 - 10% E&P 8% yield
 - 10% Midstream 7% yield
 - 10% downstream 6% yield

Global Environment Issues

- Reduced GGEs – greenhouse gas emissions
 - Lowest in US since 1994
 - CO₂ emissions continue plummeting
 - feedback mechanism
- Reduced imports from less aware nations
- Reduced environmental site impact via technology
- Increased tax revenues available to EPA, EIA, et al

Global Energy Industry Issues

- EUR: estimated ultimate recovery
 - correlation to price, access, technology varies
- Accessibility: majors vs. independents
- HSE: health, safety and environment
- Get in, get down, get fracked, get it out
 - 20-30 days in 2011 has become 10-15 days today
- Crude, gas and NGL pricing
 - \$125 has become \$48: whence pricing?
 - Gas remains a 'stranded' power source, pricewise
 - Universality of delivery, pricing challenges for NGLs

Policy Issues

- Political, regulatory, legislative
 - Local, state, national
 - XL pipeline; LNG/crude exports
 - EPA vs. an informed citizenry
- Global
 - Stranded markets are becoming global markets
 - Qatar, Indonesia, Australia, US - LNG exports
 - India, China, Japan, European - LNG imports
 - Energy politics vs. Energy policy
 - Decade of lead time for U S
 - Landowners rights
 - energy industry workers, skills & technology
 - Power generation for a global emerging middle class
 - 2B new admissions to global consumption pool by 2050



L N G

NORTHWEST SHEARWATER
-S-SIAL 87417-4

Strategic Opportunities

- Reduced imports
 - 44% over 2007
- Employment
 - 1.6M new jobs since 2008
 - 5M by 2030
 - -130,000 since 12/14!
- Tax revenue
 - \$85B in 2014
 - Improved local infrastructure
 - Local employment, gross income
 - Capital recycling: new schools, cars, trucks and toys

Investment Opportunities

- Participate in the New American Revolution
- Enjoy significant yield advantages
- Enhance portfolio growth potential
- Diversify globally without leaving home
- Manage a client's portfolio with a moderation of risk
- Moderate growth potential with yield opportunities
- Risks:
 - excess supply coupled to demand shortfall
 - Political, environmental, economic & regulatory

www.frackusa.com

FRACKING

**America's
Alternative
Energy
Revolution**

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Award Winning Author of *The 7% Solution*

Investing in MLPs Conference

September 16 – Dallas, TX

8 CE Credits have been applied for

www.jveventsgroup.com/mlp

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Brian Sulley- Tortoise Capital Advisors

Jerry Swank – Cushing Asset Management

Jeremy Held – ALPS Portfolio Solutions

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