

# Oil and gas policy issues

Lecture 8  
Energy Law & Policy  
November 2013

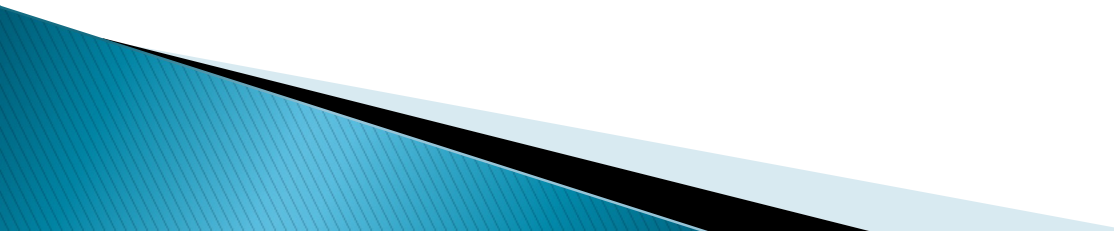
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# 2008 IEA Report

- ▶ The world's energy system is at a crossroads. Current global trends in energy supply and consumption are patently unsustainable.
- ▶ Oil is the world's vital source of energy, and will remain so for many years to come.
- ▶ Preventing catastrophic and irreversible damage to the world's climate requires a major decarbonization of the world's energy sources.
- ▶ Rapid transition to low carbon energy requires radical action by governments.

• IEA World Energy Outlook 2008

# American Petroleum Institute Position on Climate Change

- ▶ While we rely on [oil and gas] for most of our energy and will likely do so for years to come, emissions from their production and use may be helping to warm our planet by enhancing the natural greenhouse effect of the atmosphere. That's why oil and gas companies are also working to reduce their greenhouse emissions.
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# Response to IEA Report

- ▶ World Economic Crisis has changed priorities
- ▶ Renewable energy struggling in Europe
- ▶ Nuclear Energy struggling after Fukushima
- ▶ US response
  - American Recovery and Reinvestment Act – 2009
    - Funding lasted two years
  - Carbon legislation – gets through Senate, not House
    - Now before EPA – but no mandate
  - *Shale gale – no longer any urgency*

# US Energy Trends

- ▶ Consumes  $\frac{1}{4}$  of world energy.
  - Historically energy independent – fueled US economy
  - Still true for natural gas and coal
    - Rapid ongoing switch from coal based electricity to oil based.
- ▶ US increasingly dependent on oil imports.
  - But is Bakken changing this?
  - Switch from oil to natural gas?
    - Ongoing for fuel oil, home heating, chemical industry (naptha)
    - Beginning to see for transportation.
    - Potential development: natural gas to liquids

# Historical Background

- ▶ Oil developed as major commodity in 1920s for the transportation industry
- ▶ Natural gas produced with oil
  - “Casinghead gas” flared until 1970s – still flared today where no natural gas market exists
  - Gas-well gas shut in – first developed in 1970s
- ▶ Industry began in United States – extremely favorable leasing conditions
  - Multinational Oil Company
  - Integrated from E&P through the pump
  - Heavy handed approach to government policy
- ▶ 1970s saw the rise of the National Oil Company

# Energy Density: the value of oil

- ▶ Uranium-235
  - ▶ Hydrogen
  - ▶ Gasoline
  - ▶ Propane
  - ▶ Natural Gas
  - ▶ Fat
  - ▶ Coal
  - ▶ Wood
- Higher Density
- Lower Density

# Environmental Problems

- ▶ Mostly relate to spills
  - Santa Barbara spill in 1967 – advent of NEPA
  - Exxon Valdez
  - BP Deep Water Horizon spill -- 2010
- ▶ Other problems:
  - Methane leaks into water reservoirs
  - SWD well earthquakes
  - Disposal of solids contaminated with naturally occurring radioactive materials



# BP Oil Spill and Regulatory Problems

- ▶ April 2010 BP Amoco disaster in Gulf Coast changed how we look at engineering forever.
  - 11 persons killed, 17 injured in blowout
  - Largest accidental oil spill in history of US – 4.9 mm barrels of oil
  - BP failed to:
    - Center piping or secure hangings between pipes
    - Use proper well casing and tubing
    - To do a cement bond test
    - Circulate drilling mud to look for gas

# US subsidies for O&G

- ▶ Foreign policy protection to imported oil
- ▶ Subsidies that encouraged suburban sprawl
  - ▶ Rural electrification act – 1930's
  - ▶ American Highway act – 1950's
- ▶ Social policies that favored auto industry over public transit, railroads and shipping
- ▶ Minimal accounting for “externalities” -- cost to industry for pollution.
- ▶ *Low taxes*

# Tax breaks for Oil and Gas

- ▶ According to 2005 Congressional Budget Office Report – average tax rate for oil and gas is 9% -- the lowest among any U.S. industry (25% average).
  - The industry says it has a tax rate of 48% -- one of the highest for any sector
  - According to MF Global Washington Research Group, top 4 oil and gas companies pay 40% rate
    - But: what they actually pay is lower than their reported rate because of accounting tricks used to mask true tax bill.
      - CNNMoney February 11, 2011

# Oil and Gas Tax Breaks

- ▶ Use of Tax Havens – especially drilling rigs
- ▶ Foreign Tax Credits
  - Treatment of foreign royalties as a tax – \$1 B/yr
    - Normally only get to deduct as business expense
  - Foreign governments are wise to US tax code – agree to rename royalties as a tax to enable US subsidy of their development
- ▶ Accelerated Depreciation/Intangible Drilling Costs -- \$780 mm/yr
- ▶ Depletion Allowance -- \$1 billion/yr

# Depletion Allowance

- ▶ Similar to depreciation, however allows for producer to write off the value of the oil and gas in the ground.
  - Deduct value from taxable income.
  - 15% per year of gross revenue
- ▶ Typically shelters 30% of annual cash flow
- ▶ Not limited to investment basis, like in real estate – so write offs usually exceed investment.

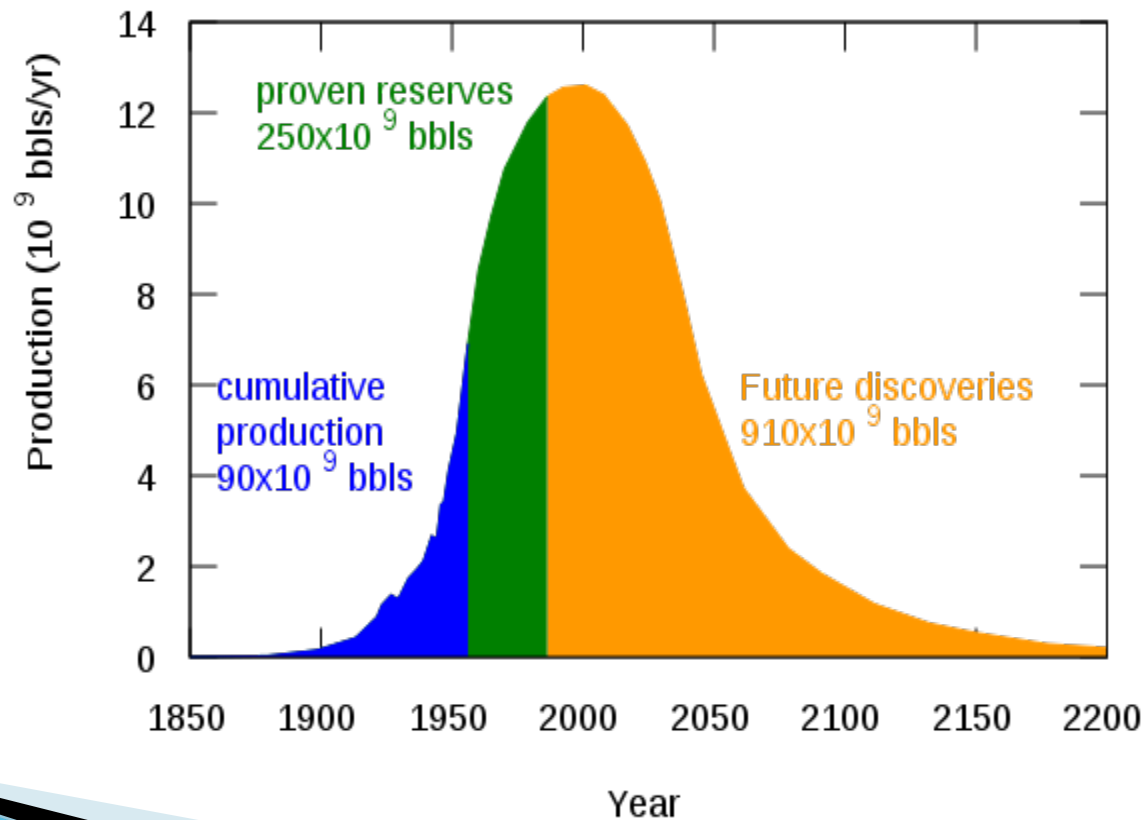
# Will Anything Change?

- ▶ "CEOs of the major oil companies have made it clear that high oil prices provide more than enough profit motive to invest in domestic production without special tax breaks."
- ▶ "As we work together to reduce our deficits, we simply can't afford these wasteful subsidies."
  - Barack Obama, April 2011 letter to Congress
- ▶ S. 2204 – Menendez, D–NJ – called for end to "Big Oil tax Loopholes – March 2012

# Peak Oil

- ▶ Point in time when the maximum rate of global petroleum extraction is reached, after which the rate of production enters terminal decline.
- ▶ M. King Hubbert initially predicted in 1974 that peak oil would occur in 1995 "if current trends continue."
- ▶ However, in the 1970s and early 1980s, global oil consumption dropped.
  - More energy efficient cars
  - Shift to natural gas for heating, electricity generation
- ▶ Consumption picked up again in 1990's.


# Current DOE Estimates for Peak Oil






# Effects of Peak Oil

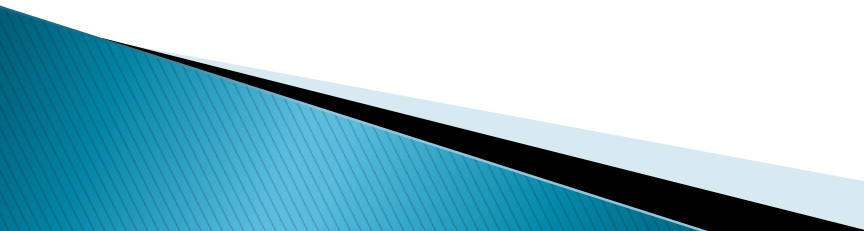
## DOE Hirsch Report 2005

- ▶ Economic, social, and political costs will be unprecedented
  - ▶ Oil peaking will be abrupt and revolutionary
  - ▶ Problem will be in liquid fuels for transportation
  - ▶ Government intervention will be required – otherwise the economic and social implications would be chaotic.
  - ▶ Mitigation efforts will require substantial time – an intense effort over decades
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# Peak Oil – American Social Upheaval

- ▶ Inversion of cities
    - Rise of mass transit
    - Wealth, population migrate to central city
  - ▶ Diets will change as the cost to deliver certain foods will become prohibitively expensive.
    - Often cited example: fish and seafood.
  - ▶ Change in how we grow food -- suggesting local gardens and farms will become our primary source of supply.
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# Depletion and Peak Oil

- ▶ Close correlation exists between increased energy consumption and economic growth.
  - ▶ Richard Heinberg:
    - When current economy starts to recover -- not enough supply -- hit a ceiling on the growth.
    - Politicians promise economic growth, fail to produce, and blame the other political party....
    - Cycle of polarization will be endless.
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# Depletion Doomsday

- ▶ Fear that once we pass a “critical threshold”, an “oil shock” will create chaos in western economies
- ▶ Forecasts for “inflection point” –
  - USGS – decades away
  - Shell Oil company – between 2015 and 2030
- ▶ Depletion fears of 1970’s were groundless
- ▶ Increasing prices led to new supplies
- ▶ No short to medium term depletion crisis

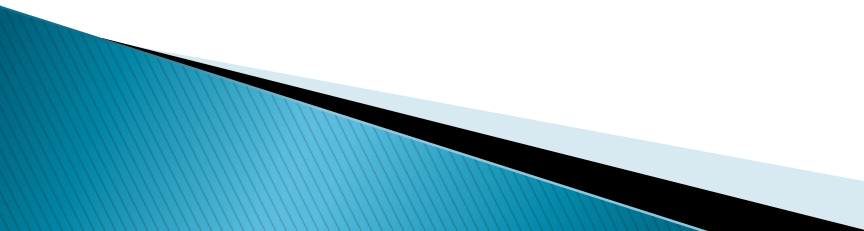
# Response to Depletion Fears

- ▶ There is no “energy crisis”:
  - Oil is plentiful, and will be for several decades
  - Much of the angst is political grandstanding, designed to stoke fear and generate support for pro-oil policies (“drill baby drill”) or for anti-oil policies.
  - Other drivers will enable the development of alternatives to oil before depletion becomes a serious problem.
- ▶ However: consumers have reason to be concerned about oil’s effect on world economy now:
  - Price volatility too risky
  - Environmental problems
  - Dangerous geopolitics – control over reserves increasingly with hostile nations

# Conclusions

- ▶ It will take time to transition away from O&G dependence
  - Near term – Shale Gale
  - Long term – Hydrogen Economy
- ▶ Geopolitics
  - Middle East disputes
  - Rise of China
  - Russian Oil & Gas hegemony
  - World Economies

# Public Policy and the Law: Knock for Knock Provisions

- ▶ Mutual or reciprocal indemnity.
    - Mutual hold harmless provisions.
    - “Bury your own dead” provisions.
  - ▶ Both parties agree to indemnify the other against claims for injuries or damages that they or their employees sustained regardless of who was at fault or who was negligent.
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# Goal of Knock for Knock Provisions

- ▶ Help avoid the cost of litigation that occurs with comparative negligence claims.
- ▶ Comparative negligence – court determines the percentage of negligence that applies to each party. Damages based upon their percentage of negligence.
- ▶ Knock for knock creates a simple sharing of the risk where each party agrees to be fully responsible for any damages they sustain or that their employees sustain and not look to the other party.



# Problems with Knock for Knock Provision

- ▶ Anti-indemnity Statutes – personal injury
  - Jurisdiction – choice of law provisions
- ▶ Third party claims
  - Subcontractors should be defined as not being a third party
  - Usual policy is straight comparative negligence rules – “guilty party pays.”
  - Pollution is big risk for third party damage.
- ▶ Relative risk
  - Fair to small service company who does minimal work on the well but suffers property damage or employee injury?

Gross Negligence/Intentional Acts<sup>25</sup>

# Macondo – lessons on k for k



# Background facts

- ▶ April 20, 2010 explosion on Deepwater Horizon rig in Gulf of Mexico
- ▶ BP hired the rig
  - Owned and operated by TransOcean
- ▶ Water depth – 1500 meters
- ▶ 11 / 121 workers killed
- ▶ 4.9 mm bbls spilled in Gulf before July 15 cap put in place
- ▶ Parties: BP, Anadarko, TransOcean, MOEX, Halliburton, Cameron International

# Application of K for K in Macondo

- ▶ Facts:
  - Failure of cement barrier in production casing.
  - Deepwater Horizon owned by Transocean and rented by BP
  - Halliburton is cement contractor
- ▶ Investigation found that BP, Transocean and Halliburton all had varying degrees of fault.
- ▶ Parties had Knock for Knock provisions.
- ▶ Jurisdiction: Admiralty? Texas? Louisiana?
- ▶ Venue: Federal Court -- Louisiana

# Public Policy Issues for the Courts

- ▶ Anti-Indemnity rules.
  - Only personal injury.
- ▶ Civil Penalties.
  - Louisiana Courts: if purpose of penalty is to deter rather than compensate, then k for k does not apply.
- ▶ Criminal Penalties.
  - K for K does not extend to criminal fines
- ▶ Gross Negligence allegations.
  - Louisiana court held that grossly negligent party can benefit from K for K provision
- ▶ Fraud
  - Louisiana – can invalidate K for K provision

# Public Policy Issues for the Courts

- ▶ Breach of Contract?
  - Behavior that is breach in express obligation that led to the incident – courts have been reluctant to overturn a k for k provision on these grounds.
- ▶ BP argument: Transocean had breached its contract in a way to materially increase BP's risk as an indemnitor – thereby voiding the indemnity.
- ▶ Louisiana Court: “possible that a breach of a fundamental, core obligation of the contract could invalidate the indemnity clause” – but declined to rule on it.

# Public Policy Questions

- ▶ Should Operators try to push more of the risk onto the supply chain/service industry?
  - Service Companies: Operators better position to deal with and manage pollution risk
  - Operators: Service industry needs to be incentivized to be more careful.
- ▶ Does prospect of civil or criminal sanctions provide the incentive needed? Reputational damages?
  - Only apply in severest cases.

# Future of Knock for Knock

- ▶ Unlikely to see industry move away from the K for K provisions.
- ▶ May start to see Operators insisting on gross negligence carve outs.



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Thank you!