Delivering America’s Energy Security

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Marathon Oil Corporation

- > 120 years in business
- 4th largest US integrated energy company
  - Strong Upstream growth
  - 5th largest US refiner
  - Expertise across energy chain
  - Technology enabled
  - Ability to execute
- Focused on profitable growth
Delivering America’s Energy Security
Competing Factors

Energy Security

Environmental Concerns

Economic Stability

Seeking a new equilibrium...

*Increased energy demand with lower carbon emissions*
World Economy and Energy

Population & economic growth → increases energy consumption

Source: EIA 2008 Reference Case
World Energy Consumption

Demand by Type

- Liquids
- Natural Gas
- Coal
- Nuclear
- Other

86% of Total

Demand by Sector

- Power Generation
- Transportation
- Heavy Manufacturing
- Chemicals
- Other Industry
- Res / Com

Sources: EIA 2008 Reference Case; XOM 2008 The Outlook for Energy
Transportation Demand

Cars per 1000 People
Historical Data through 2003/04

China is just getting started

Source: PFC Energy
World Energy Consumption

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Sources: EIA 2008 Reference Case; XOM 2008 The Outlook for Energy
Oil, gas and coal remain the predominant sources of energy
World CO₂ Emissions

Incremental Energy-Related CO₂ Emissions, 2005-2030

Emissions driven by non-OECD increasing energy consumption

Source: IEA 2008 Reference Case
World Marginal Cost of Carbon

End-use efficiency

Power Sector

Industry Fuel Switching And CCS

Transport Alternative Fuels

50% Reduction From 2008

0% Reduction From 2008

Reduction below current level will be challenging and costly

Source: IEA Energy Technology Perspectives 2008
Competing Factors

Requires a Comprehensive Energy Strategy

- Energy Security
- Environmental Concerns
- Economic Stability

Energy Strategy
Competing Factors
Requires a Comprehensive Energy Strategy

- Energy Security
- Environmental Concerns

Economic Stability

- Energy Efficiency and Conservation
Competing Factors
Requires a Comprehensive Energy Strategy

- Energy Security
- Environmental Concerns

- Economic Stability
- Energy Efficiency and Conservation
- Diversity of Energy Supply
Technically Recoverable Resources

More Accessible…
- Oil Shale
- Heavy Oil / Bitumen
- Unconventional Gas
- Enhanced Oil Recovery
- Stranded Gas
- Deep Water
- Extreme Arctic

Innovation and technology are critical

Source: IEA, Resources to Reserves Report, 2005
Worldwide Reserve Ownership

Nationalism makes access to resource more difficult

Source: PFC Energy 2006; Energy Intelligence 2007
World Oil & Gas Supply Challenge

Source: EIA 2008 Reference Case

- Dev of new discoveries
- Unconventional gas
- Unconventional oil
- Improved / enhanced oil recovery
- Dev of existing resources

Accessibility and the technical difficulty more challenging

Source: EIA 2008 Reference Case
Technology – Our Industry’s Investments (2000-2007)

**BY INVESTOR**
- **Oil and Gas Companies**: $121.4 Billion (65%)
- **Other Private**: $58.3 Billion (31%)
- **Federal Government**: $8.3 Billion (4%)

**BY TECHNOLOGY**
- **Frontier Hydrocarbons**: $109.8 Billion (60%)
- **End Use**: $45.5 Billion (25%)
- **Non Hydrocarbons**: $32.7 Billion (15%)

Source: T2 and Associates and CEE
Competing Factors
Requires a Comprehensive Energy Strategy

- Energy Security
- Environmental Concerns
- Economic Stability

Energy Strategy

- Energy Efficiency and Conservation
- Diversity of Energy Supply
- Technology