



Oil Shale Development Economics

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**Khosrow Biglarbigi
Hitesh Mohan
INTEK, INC.**

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Economic Discussion



Part I - Project Economics

- Project costs
- Economic price
- Cash flow

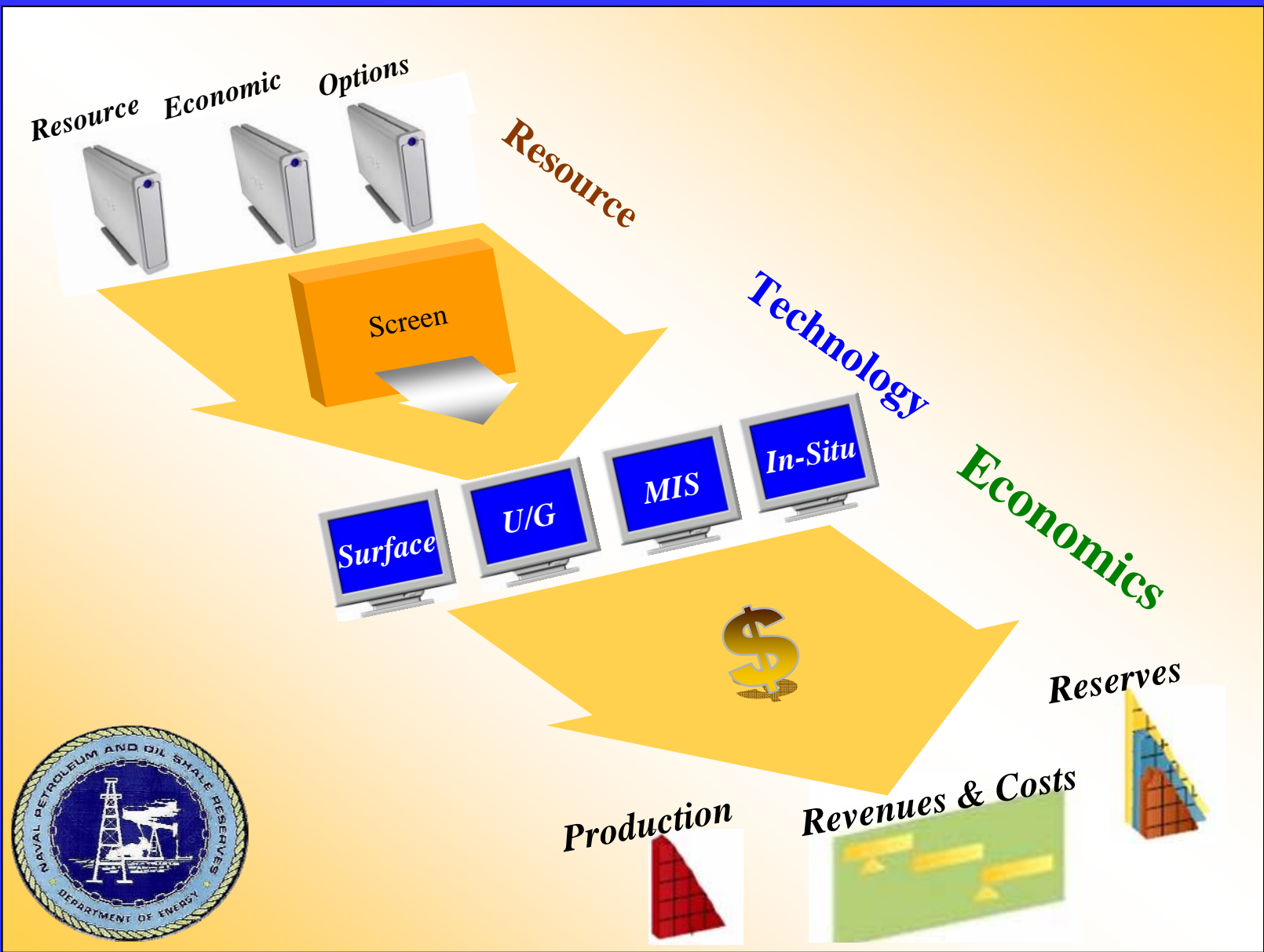


Part II – A new oil shale industry

- Potential size
- Economic hurdles/solutions
- Benefits on U.S. economy



National Oil Shale Model





Resource Base Analyzed

- Industry nominated tracts
- 79 Billion Barrels of resource in place
- Detailed geologic & petrophysical data

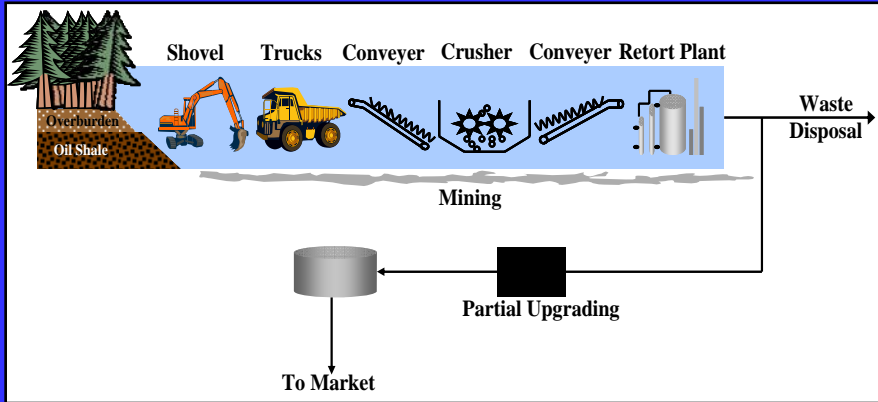
Western Oil Shale



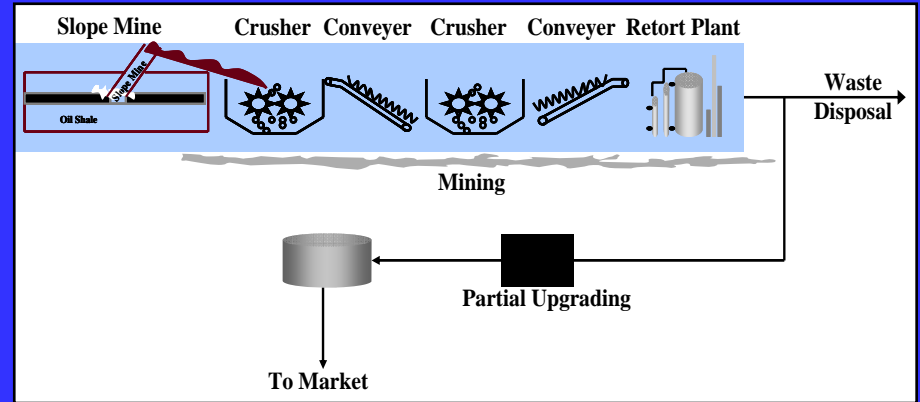


Technologies Considered

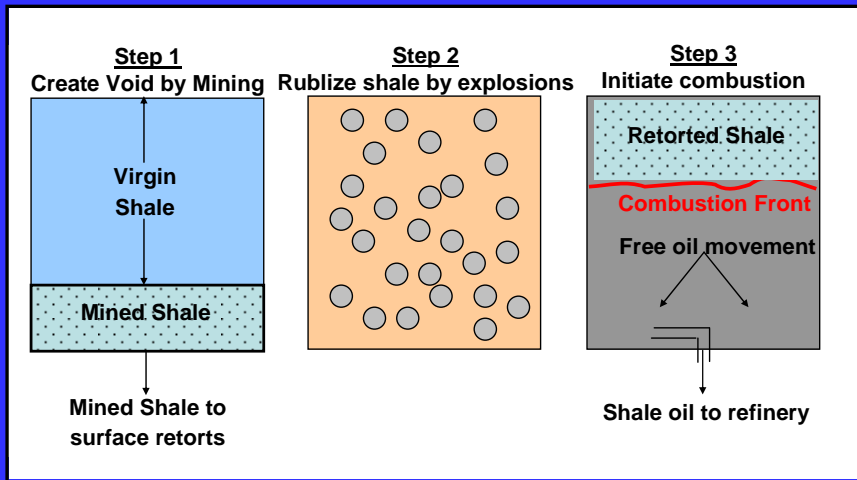
Surface Mining / Surface Retort



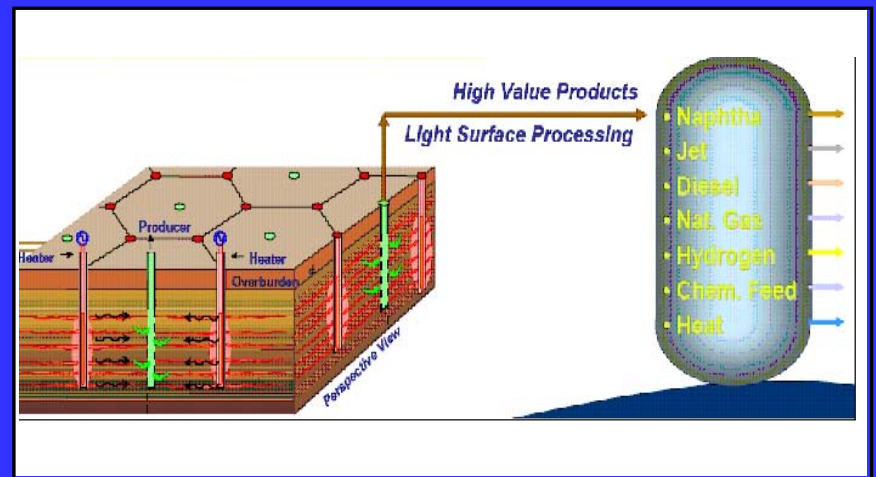
Underground Mining / Surface Retort



Modified In-Situ



True In-Situ





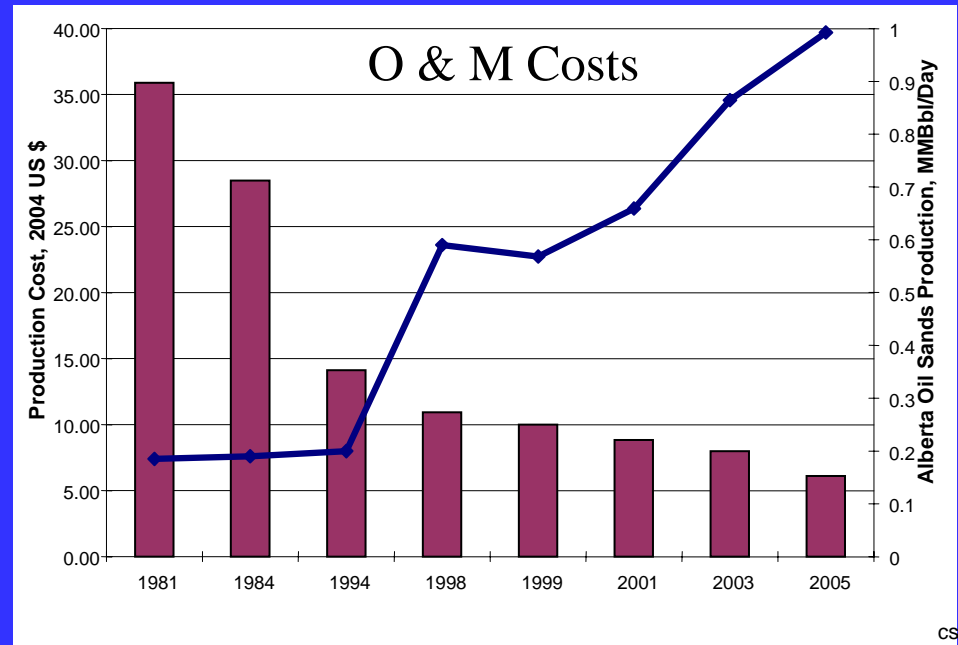
Project Costs

First Generation Projects

Item	Unit	Range
Capital Cost*	K\$/SDB	40-55
O&M Cost*	\$/Bbl	12-20

*Inclusive of mining, retort, & upgrading

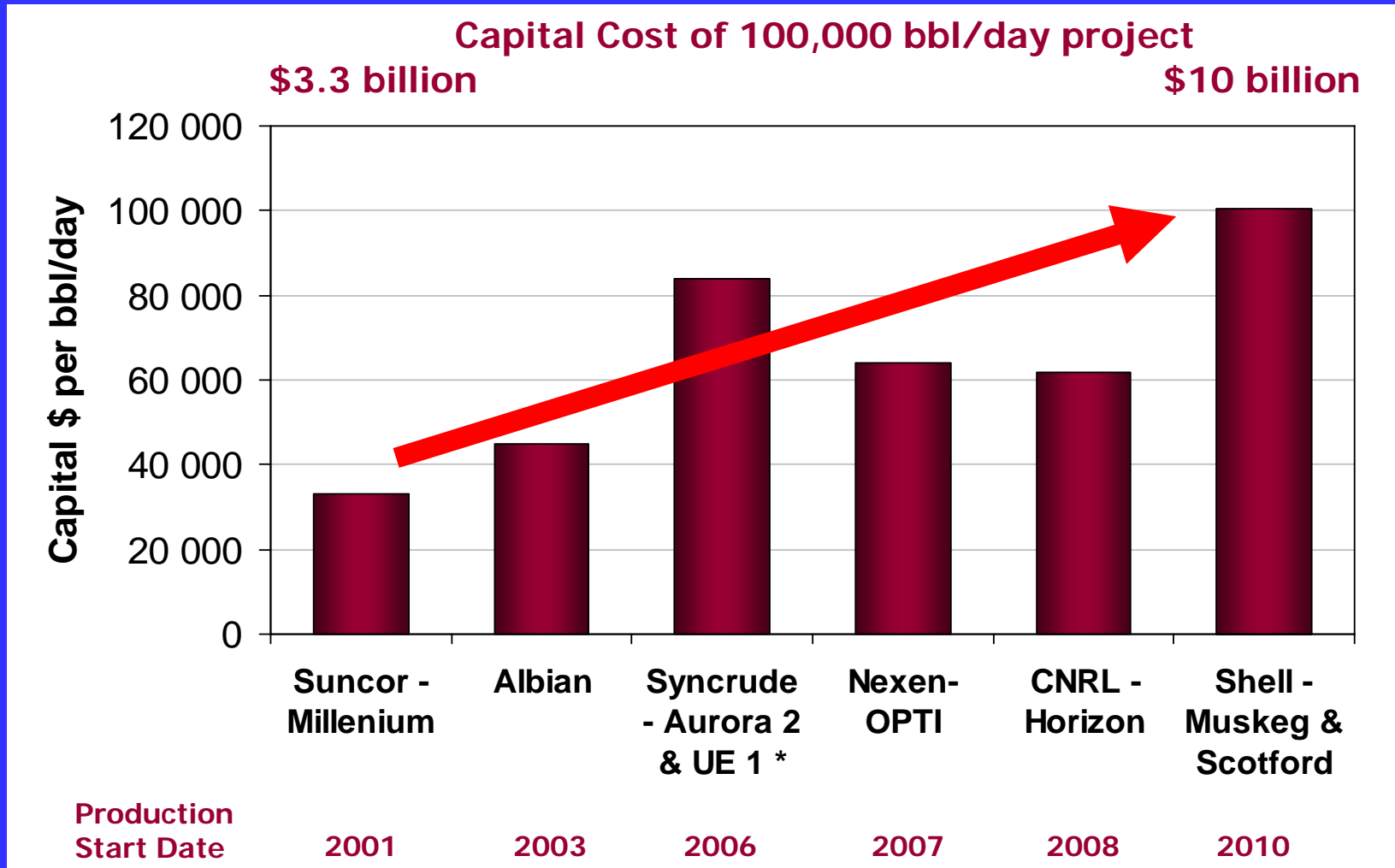
Canadian Oil Sands



CS



However, the Capital Costs are Increasing (Source: CAPP, March 2007)*



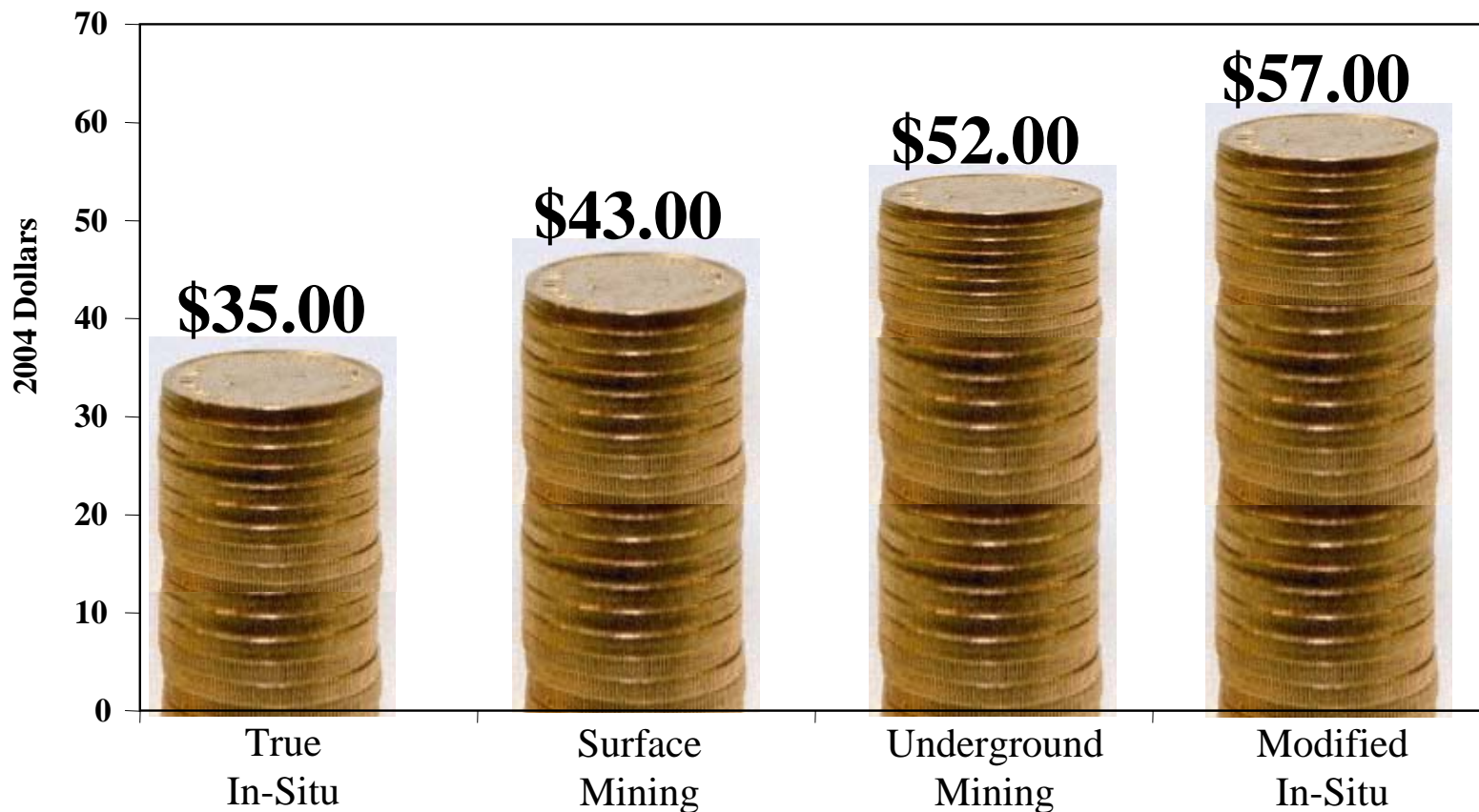
*Presented at the 2007 EIA conference, Washington. D.C.



Economic Price for Oil Shale Technology

Generic Projects (Price: \$/Bbl)

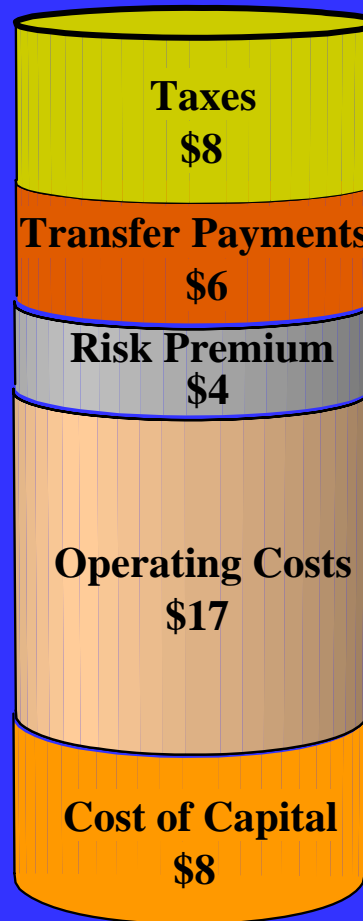
Rate of Return – 15%





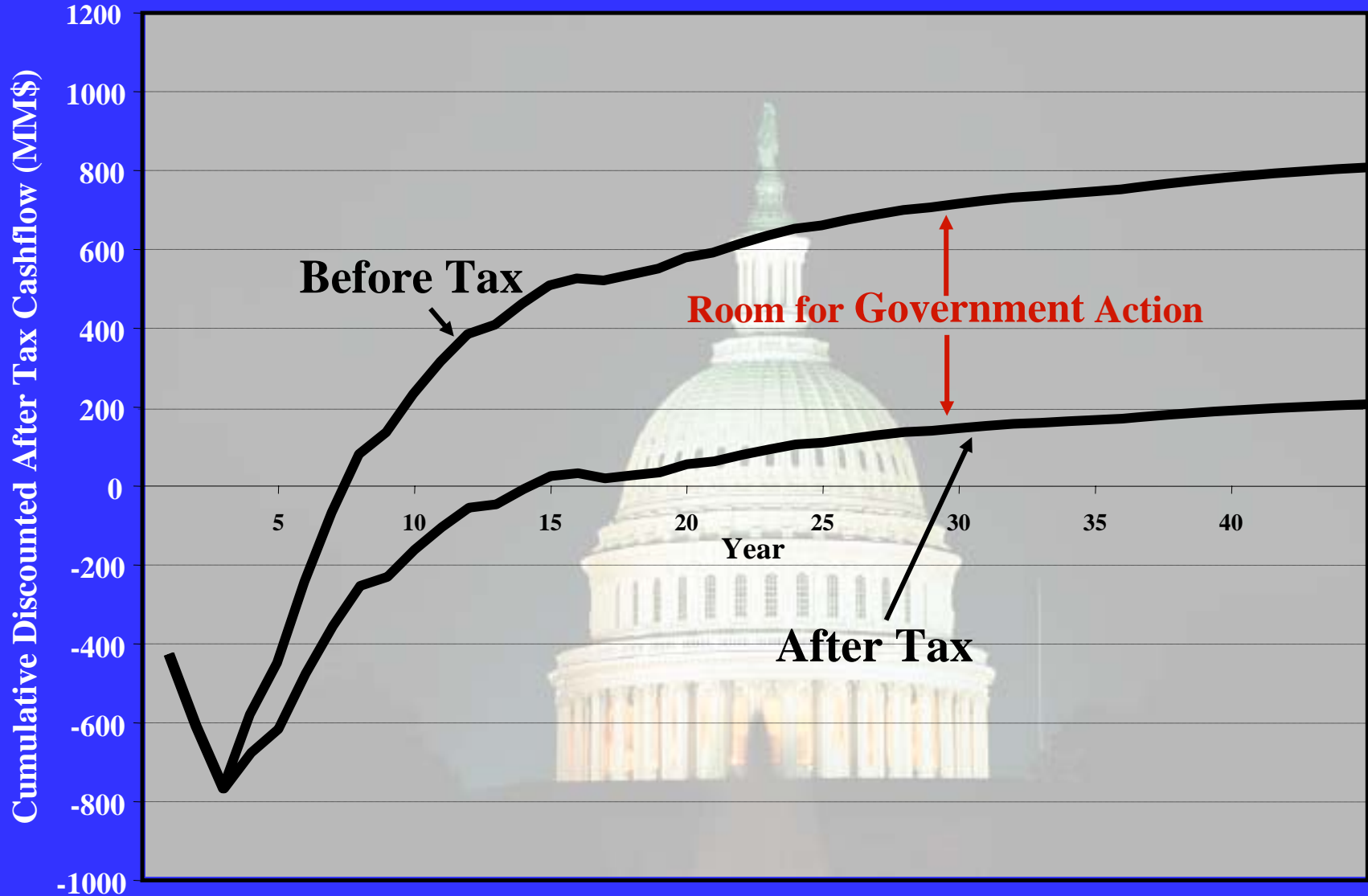
Breakdown of Economic Price for Generic Surface Project

\$43/Bbl



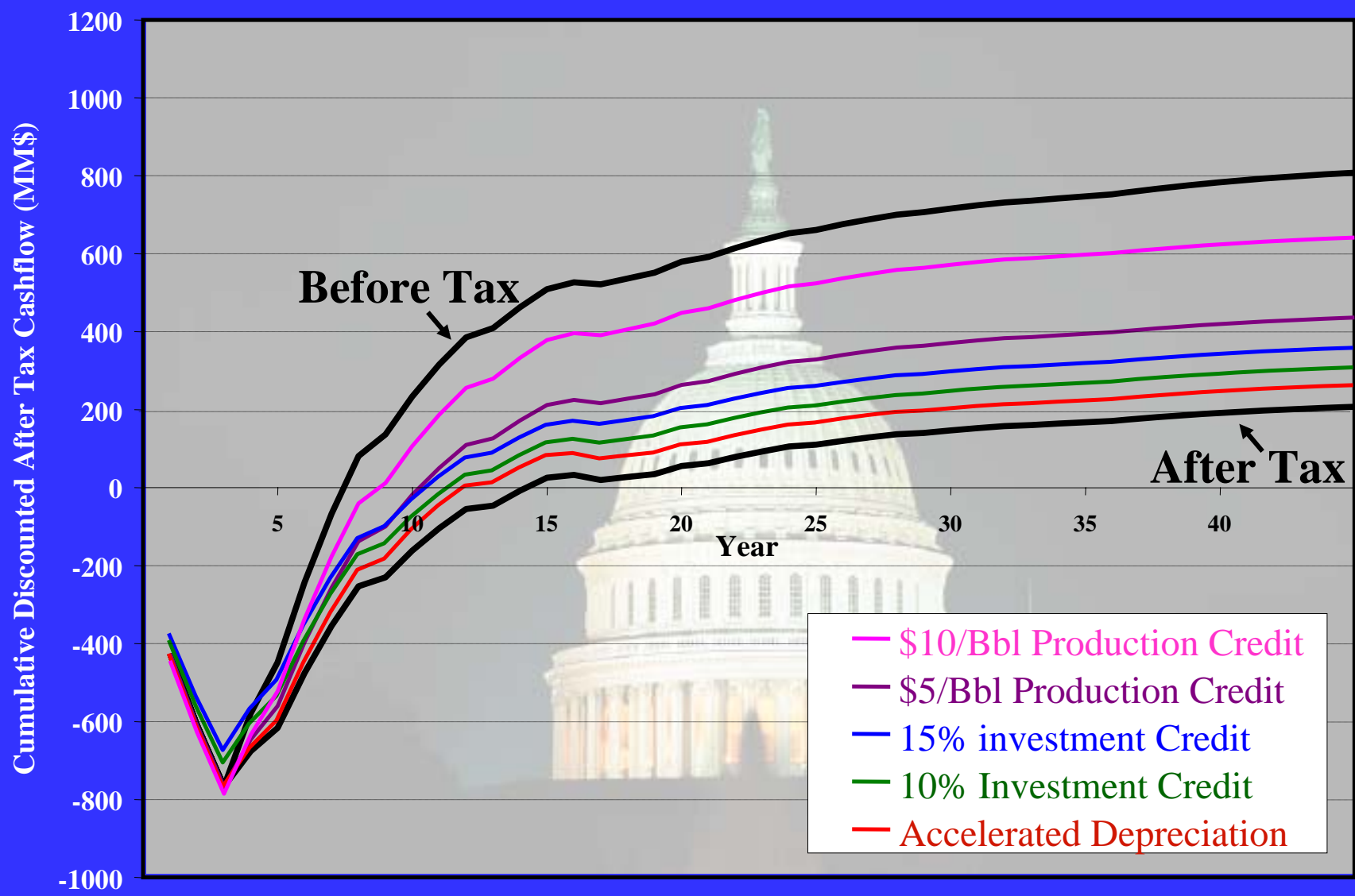


Cashflow of a Generic Oil Shale Project



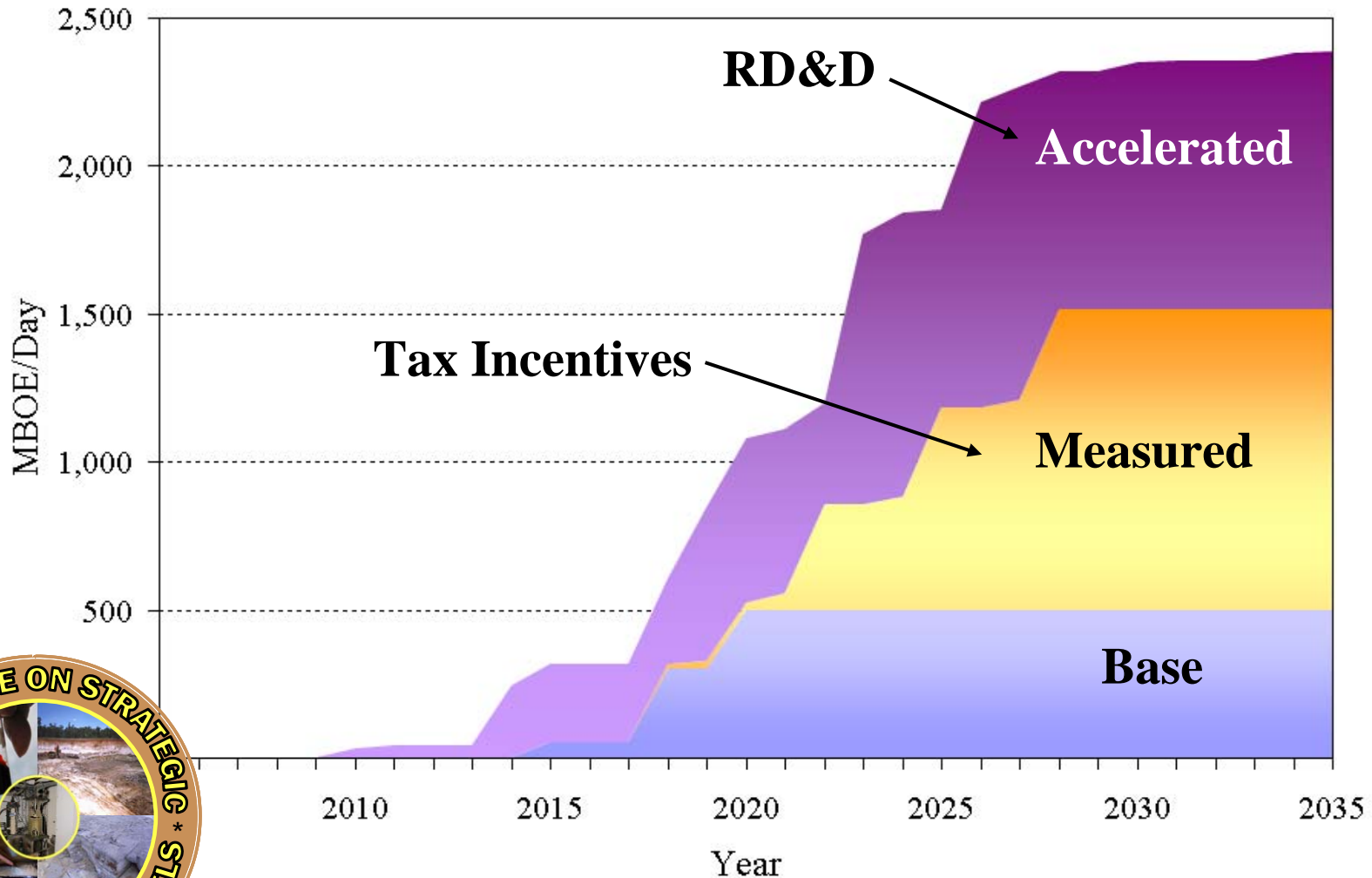


Impact of Incentives on Generic Cashflow



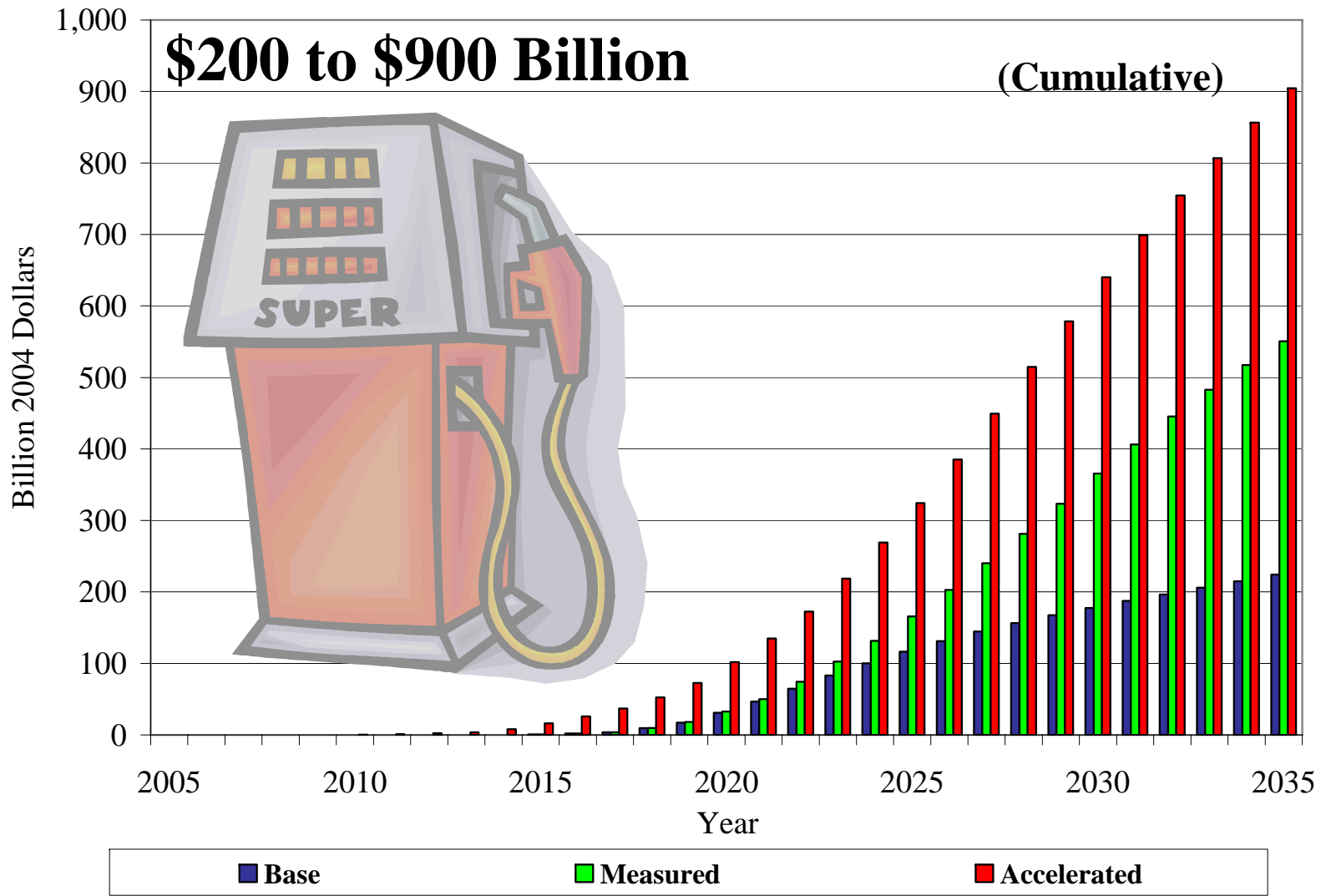


Projected Production Potential (BOE) (Shale Oil in the U.S.)



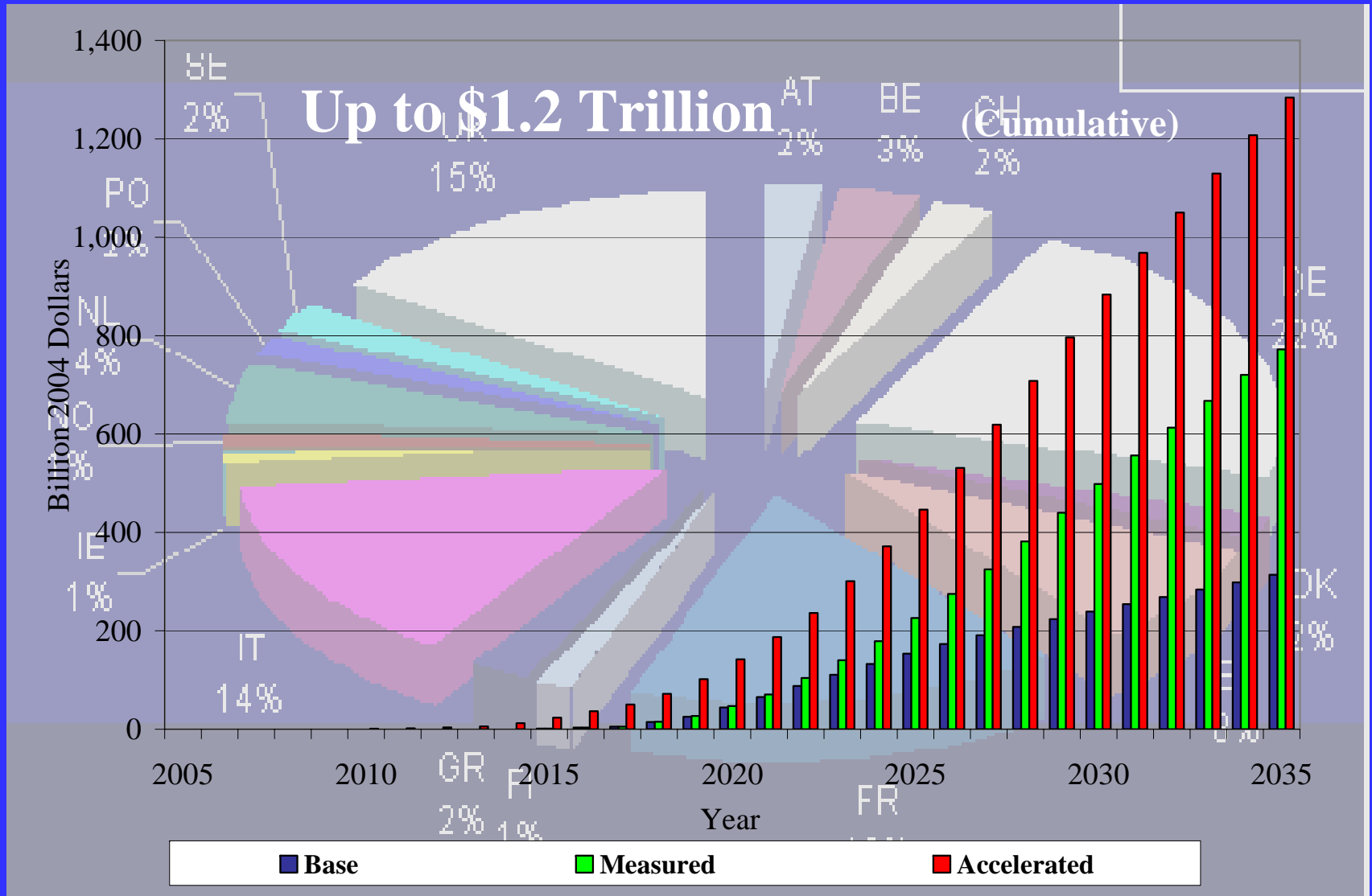


Savings to U.S. Consumers



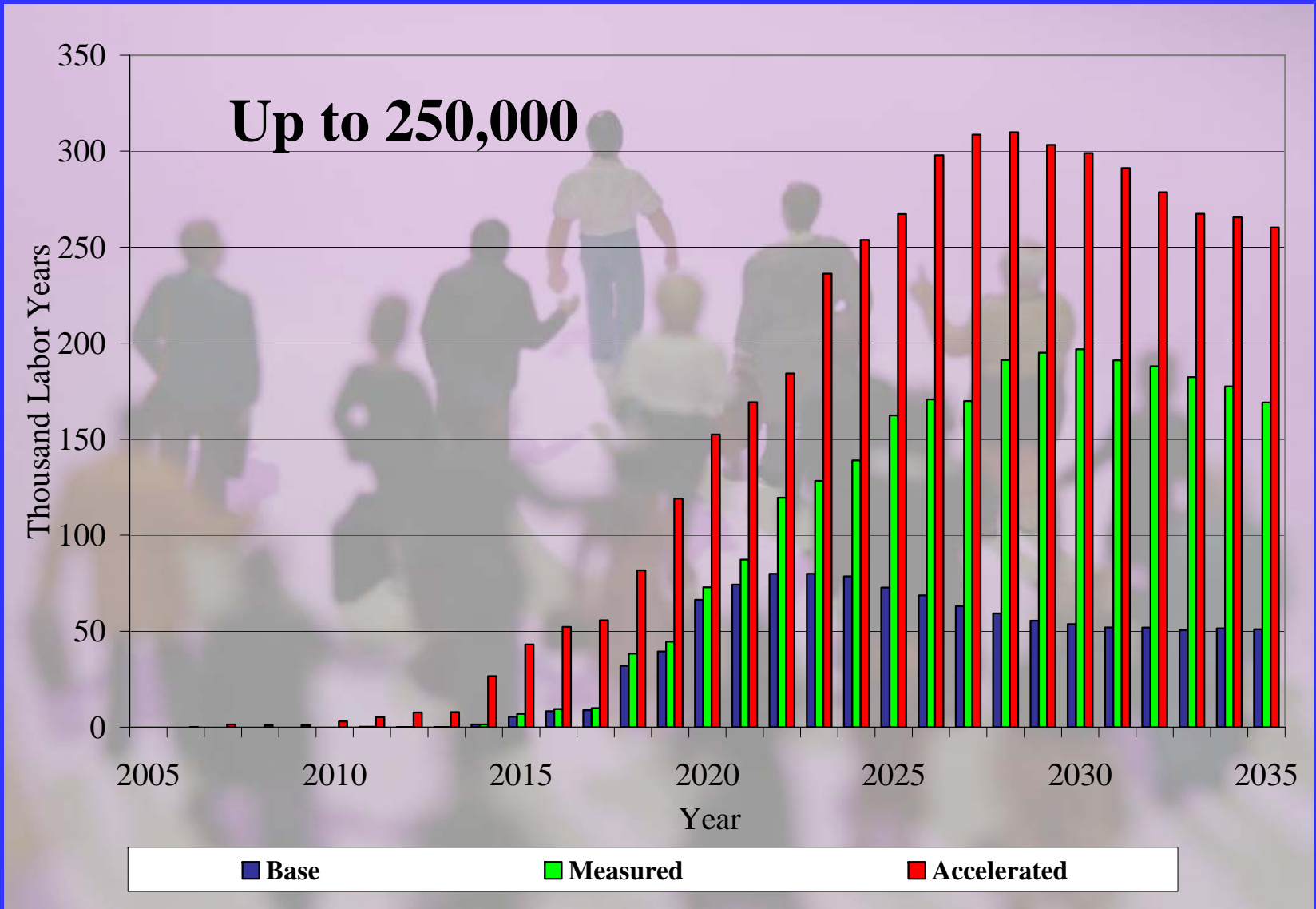


Contribution to GDP



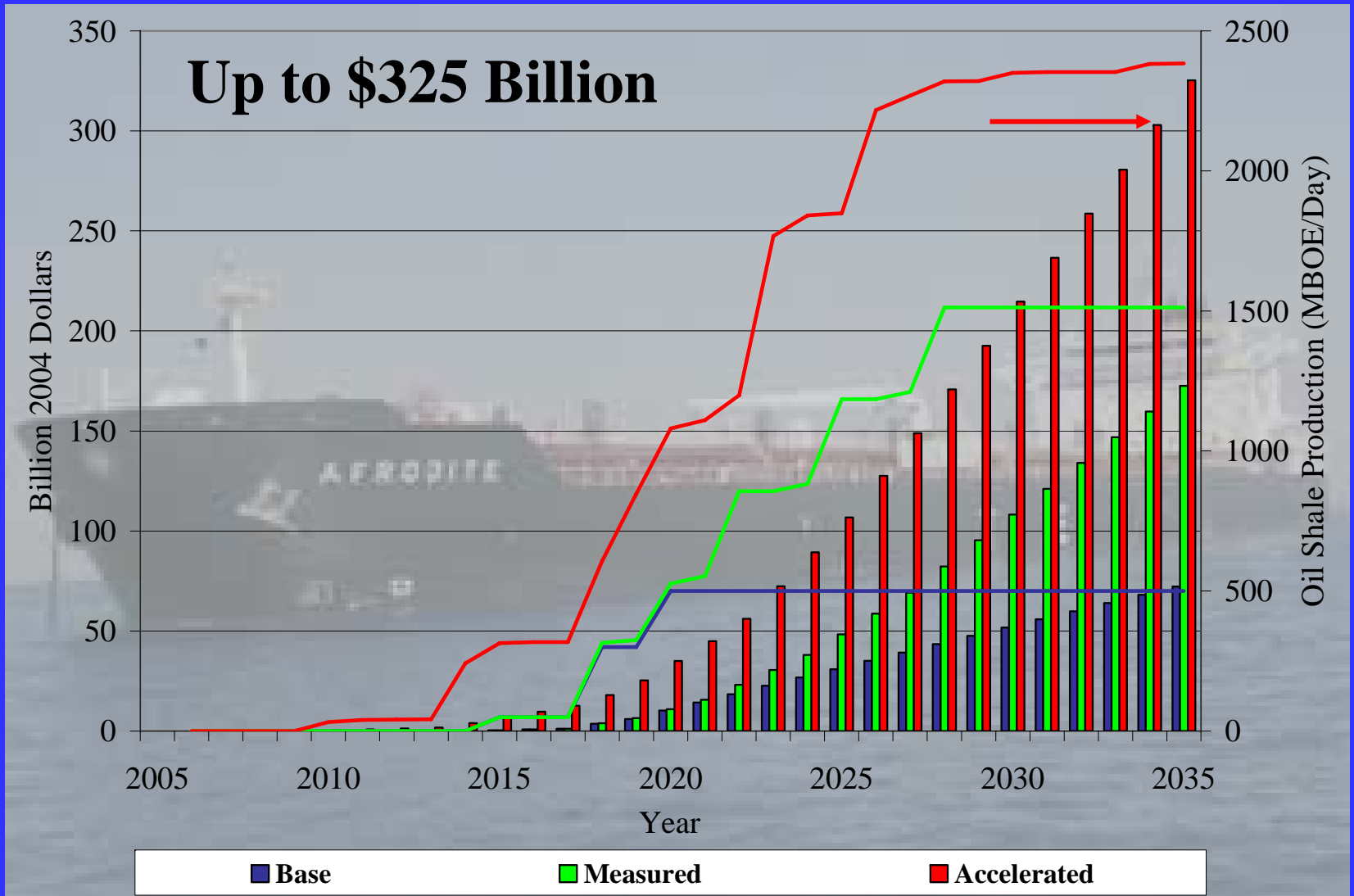


New Jobs



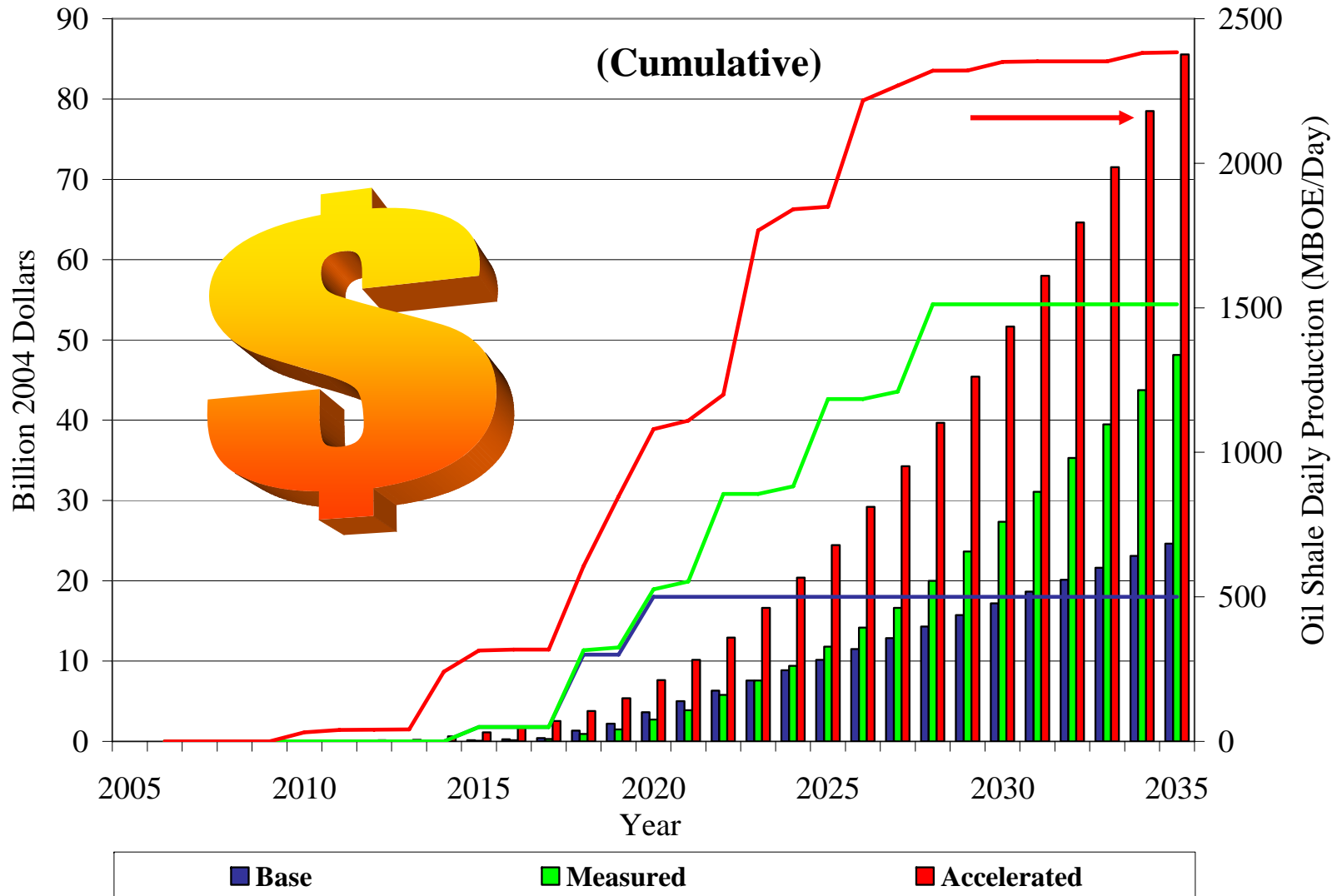


Savings on Foreign Imports






Direct Local, State, And Federal Revenues Will Increase by \$25 to \$85 Billion by 2035





For More Information



TASK FORCE ON STRATEGIC UNCONVENTIONAL FUELS



America's Strategic Unconventional Fuels

Oil Shale • Tar Sands • Coal Derived Liquids
• Heavy Oil • CO₂ Enhanced Recovery and Storage

Volume I – Preparation Strategy, Plan, and Recommendations

Completed: February 2007
Published: September 2007

IN RESPONSE TO SECTION 369 OF THE ENERGY POLICY ACT OF 2005 (P.L. 109-58)



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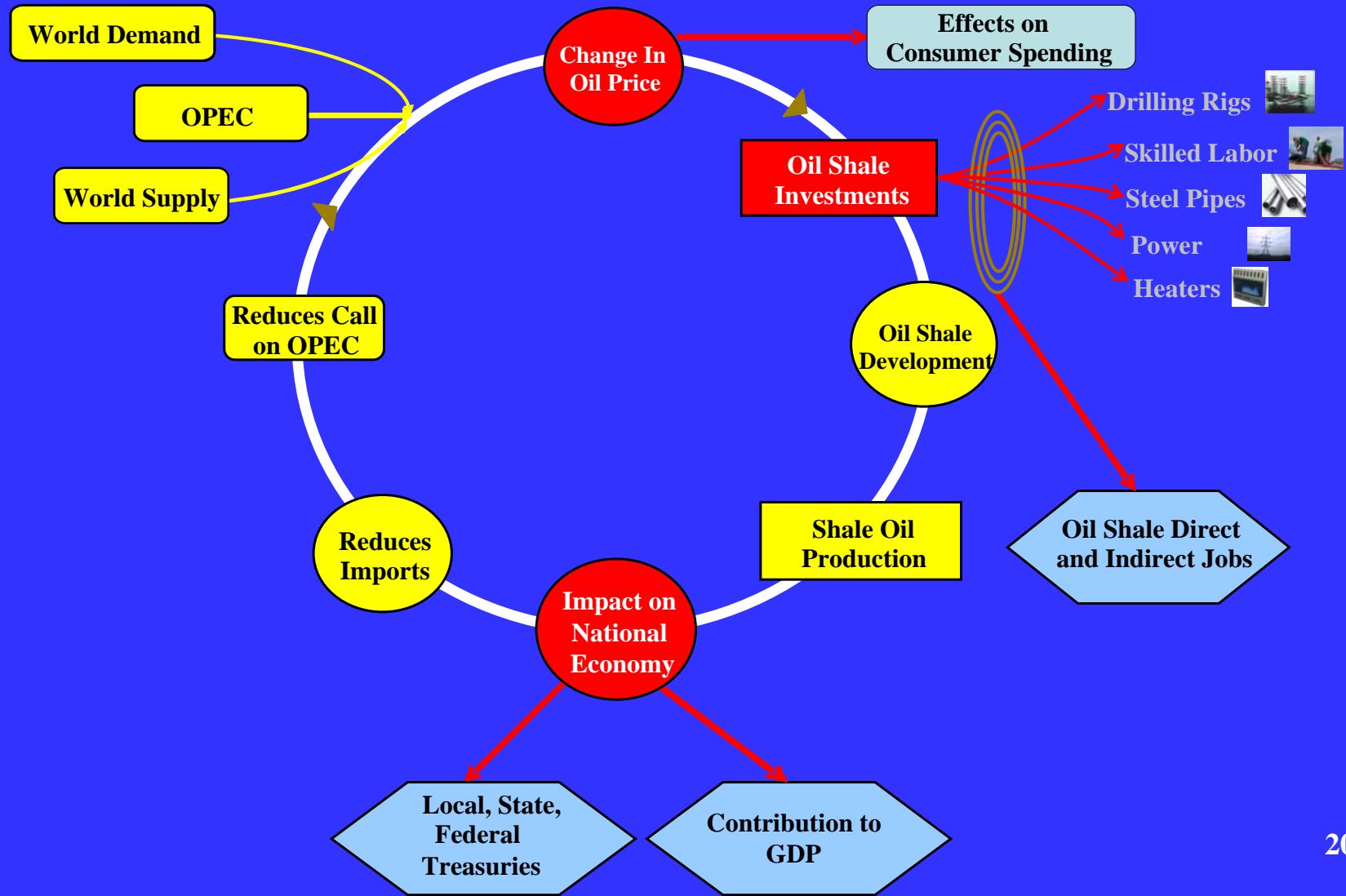
<http://www.unconventionalfuels.org>



Appendix



Potential Influence of Oil Shale Development





Favorable Fuel Prices Will Increase Consumer Discretionary Spending, Non-Petroleum Jobs, And GDP

