

Powering the Future: Evaluating Environmental and Energy Policy





Environment & Energy in Context

“The huge energy challenges facing China and India are global energy challenges and call for a global response. The World Energy Outlook 2007 charts a course to a more secure, competitive, lower-carbon energy system – a course that must involve the world’s two emerging giants.”

-Nobuo Tanaka, Executive Director of the International Energy Agency (IEA)

“Policies to address climate change need to consider consequences not only for environmental risks but also for social and economic development...”

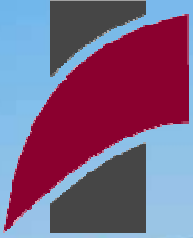
-ExxonMobil, *Tomorrow’s Energy: A Perspective on Energy Trends, Greenhouse Gas Emissions and Future Energy Options*





General Considerations

- Relative Fuel Costs
- Physical Infrastructure Investment
 - Machinery
 - Construction
- Spending
 - Consumer
 - Government
- New Energy Industry
 - All the physical infrastructure considerations
 - Firm/Industry Sales
 - Intermediate Demands




Additional Considerations

- Research and Development
 - Facilities/Capacity
 - Productivity gains resulting from R+D
- Cost of Pollution/
Environmental Externalities
- Absolute Amount of Pollution

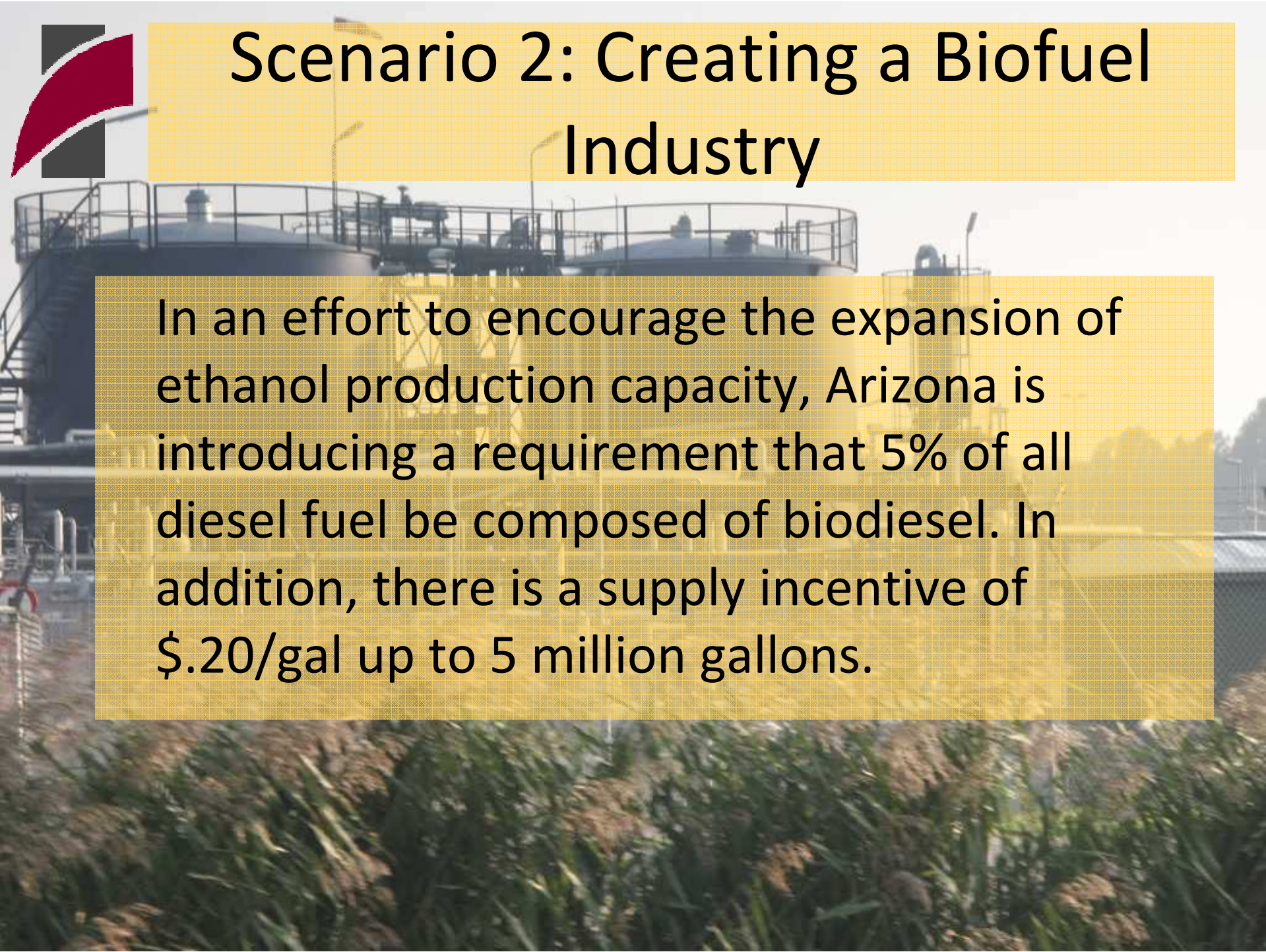


Scenario 1: High Gas Mileage Car Incentive

The state of Arizona has decided to discourage gasoline consumption through a rebate on fuel efficient cars funded by a fee on high consumption vehicles. The plan is self-financing (i.e. it requires no general funds to operate). The scheme is forecasted to reduce gas consumption by 20% relative to the baseline in 2018 and forward. Gas tax revenue lost will reduce government spending by .25% a year relative to the baseline.



Scenario 2: Creating a Biofuel Industry



In an effort to encourage the expansion of ethanol production capacity, Arizona is introducing a requirement that 5% of all diesel fuel be composed of biodiesel. In addition, there is a supply incentive of \$.20/gal up to 5 million gallons.



Scenario 3: Environmental Home Regulations

To reduce energy consumption, Arizona has enacted a series of housing regulations that will apply to all new housing being built starting in 2009. Although housing costs will go up initially, homeowners will reap benefits in the form of much lower utilities costs in the long term.



Coming Up Next Time

May 5th – 9th

Sticking Together: Clustering Industry to
Increase Efficiency

