

the energy

crop company®

Biofuels - Integrating Upstream

November 2011
Richard Hamilton
President and CEO



Safe Harbor Statement

This presentation includes forward-looking statements that are subject to many risks and uncertainties. These forward-looking statements, such as our statements about our short-term and long-term growth strategies, can sometimes be identified by our use of terms such as "intend," "expect," "plan," "estimate," "future," "strive" and similar words. Although we believe that the expectations reflected in our forward-looking statements are reasonable, those statements involve many risks and uncertainties that may cause our actual results to differ from what may be expressed or implied in our statements. Those risks are discussed in our registration statement on Form S-1, which is on file with the Securities and Exchange Commission, particularly in the sections titled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

No forward-looking statement is a guarantee of future results, and you should not place undue reliance on our forward-looking statements, which reflect our views as of the date of this presentation. We assume no obligation to update any forward-looking statement contained in this presentation, except as may be required by law.



Follow The Spending...

Upstream





Refining





Downstream





Cost To Generate a Barrel Of Oil Reserve

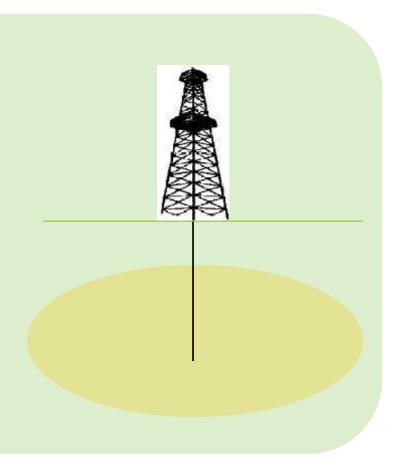
Illustrative Calculation

For International Oil Companies:

Average spend on E&P (2010) ~\$17B/year

Average F&D/barrel of reserve \$34/ b (2010) three year F&D average = \$20/b

Total E&P spend for 6 IOC's >\$100,000,000,000



Finding new oil reserves costs ~\$20/barrel...today



Key Question...

Why should society have a reserve accounting system for hydrocarbons....but not for carbohydrates?



Biomass as a Renewable Reserve

Illustrative Calculation

21 year contract

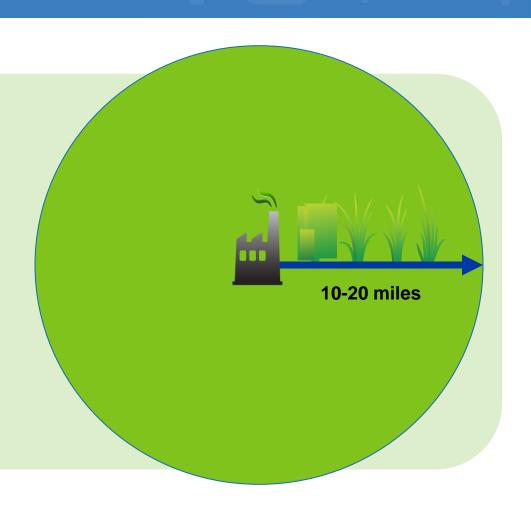
20 tons / acre

100 gallons per ton

 $= 4.2 \times 10^4$ gallons/acre

@ 42 gallons per barrel

= 1,000 barrels per acre



How many acres might be "under contract"?



10 Million Acres = A Lot Or A Little?

 Global pastureland 8,200, 	, 000	$_{J},000$
---	---------	------------

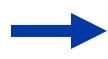
Global cropland 3,400	0,000,000	J
---	-----------	---

US golf courses	1,	,000	,000
-----------------------------------	----	------	------



Biomass as Renewable Reserves







1 acre

10M acres

=

1,000 barrels*

=

10.0 billion barrels

	Total Reserves (Oil Equivalent Barrels, Billions, 2010)
Exxon Mobil	11.7
ВР	10.5
Royal Dutch Shell	6.1
Total S.A.	5.7
Conoco Phillips	3.4
Chevron	6.5



Cost To "Find" A Barrel Of Biomass Reserves

Illustrative Calculation

50M gallon/yr facility

\$5 per annual gallon

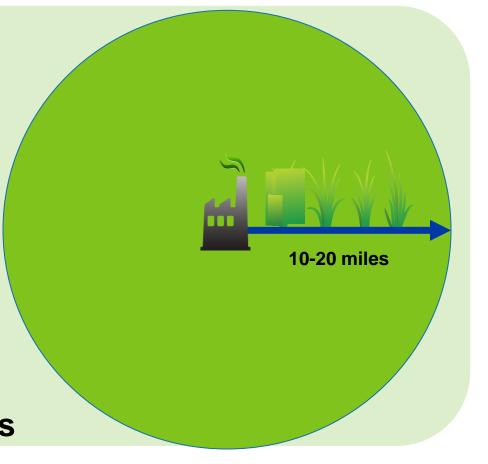
\$250M investment

20 tons/acre

25,000 acres

X 1,000 barrels per acre

25M barrels of reserves

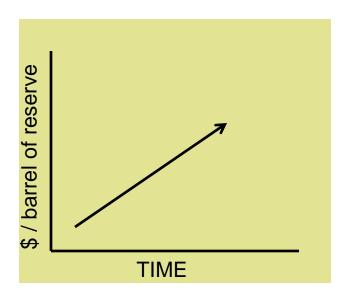


Biomass reserves could be "found" for ~\$10/barrel

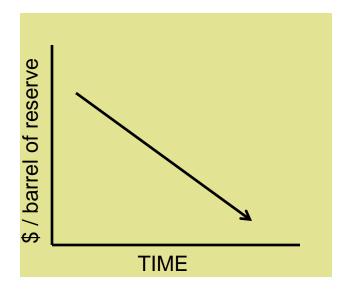


Trend Lines...

 Despite technological innovations, cost of finding and developing new oil reserves is increasing

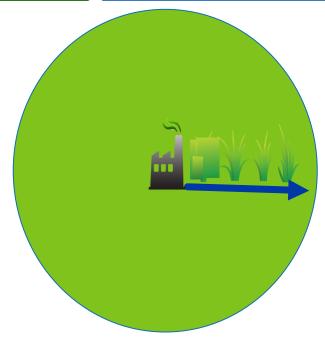


 Because of technological innovation, costs of finding, developing and producing biomass reserves is likely to decrease

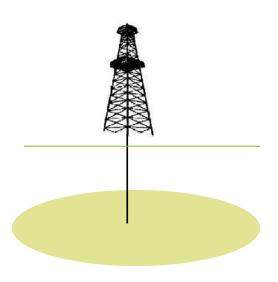




Pros and Cons



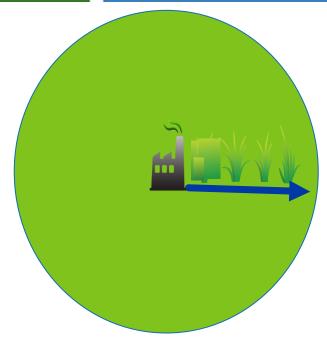
- No to low carbon
- Low discovery risk
- Improving technology increases reserves
- Fields don't peak and decline
- Costs per barrel of reserve <u>includes</u> refining costs



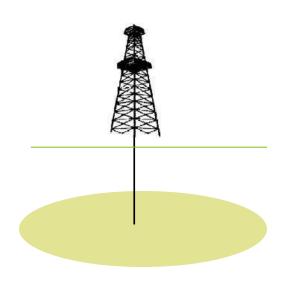
- Fits current accounting system
- Fits existing expertise
- Fits existing business model
- Currently highly profitable
- Increasingly expensive to find new reserves



What Does \$100,000,000,000 Buy?



- 400 biorefineries @ \$250M each
- 10B barrels of reserves created
- 476M barrels of petroleum NOT imported
- 50M of tons of carbon sequestered

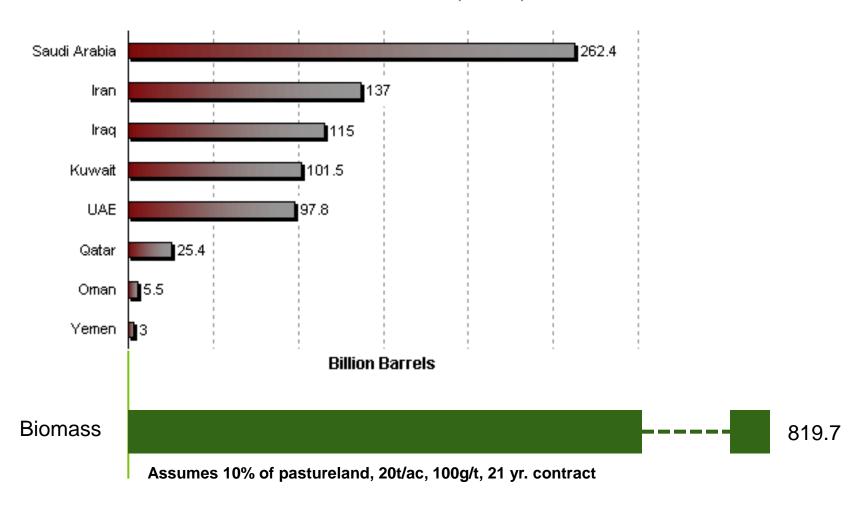


- One year of E&P for top 6 international oil companies
- 818M barrels of reserves created
- >200M tons of CO2 emitted



Think Different...

Selected Middle East Proven Oil Reserves, Jan. 1, 2011





Postcards From Brazil...







Interested?

Send an email to:

To: Bsimmons@capitaldecisions.com

Subject: Renewable Reserves



the energy

crop company®

