



New Generation **BIOFUELS**

Advanced Renewable Technology

Introduction to Biofuel in Baltimore
May 21st, 2009



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Agenda

- Background Information
- Recent Events
- Technical Overview
- Environmental Value

Background

- New Generation Biofuels is a publicly traded company (NASDAQ: NGBF) incorporated in March, 2006
- NGB is commercializing a renewable biofuel utilizing a highly cost-effective, patent-pending process
- NGB's biofuel is an emulsion of vegetable oil or animal fat feedstocks, water and proprietary additives.
- Formulated to be used neat (at 100%)
- Our production blending process:
 - Requires relatively low capital expenditures
 - Requires relatively low energy input
 - Creates no byproducts



Potential Oil Feedstocks

- Soybeans
- Animal Fats
- Recycled Vegetable Oil
- Jatropha
- Algae
- Corn oil
- Peanut
- Canola
- Palm
- Coconut
- Cottonseed

Recent Events

- Completed construction of first commercial-scale plant in Baltimore in February
- Successful Application Tests
 - Progress Energy
 - Delta Chemical
 - Catoctin Mountain Growers
- Sales contracts announced
 - Delivery has started per contracts

NGB Baltimore Plant

- First Production Facility Completed
 - February 2009
 - Nominal 5 million gallons/year capacity
 - Expandable to 50 million gallons/year
- Processes and equipment in place to deliver high first-time quality
- Excellent results in first four production runs



Recent Application Tests

- Progress Energy
 - Bartow Steam Plant – large utility boiler
 - Demonstrated ignition and flame stability
- Boiler Tests
 - Delta Chemical
 - Catoctin Mountain Growers
 - 45% reduction in NO_x emissions
 - Zero Sulphur

Product Lineup

- NGB currently is commercializing two versions of its fuel
 - Classic – lowest cost product intended for applications where a lower flash point is acceptable
 - Ultra HF – premium product with higher flash point and energy content
- Both fuels provide significant NOx and SOx advantages

	Classic	Ultra HF
Flash Point (°F)	>75	>140
Heat of Combustion (BTU/gal)	>90,000	>102,000
Kinematic Viscosity @ 40°C (cSt)	<70	125 typ.
Bottom Sediment & Water (%)	<0.1	<0.5
Specific Gravity	0.934	0.954
Pour Point (°F)	<0	<5



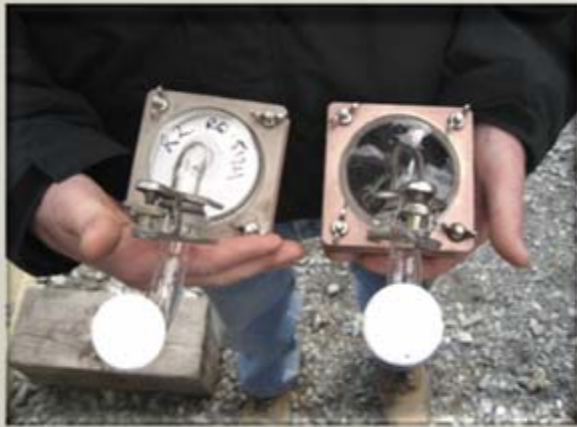
Field tests



The product



Cleaver
Brooks boiler



Filter
comparison



GE Gas
turbine

Application Tests – Gas Turbines

- Dynegy
 - 3 successful tests at Oakland, CA peaking plant
 - Pratt & Whitney FT4 Aero derivative Gas Turbine technology (25 MW)
 - Tests performed on multiple formulations, including recycled vegetable oil
 - 60% NOx reduction
 - Signed commercial contract June 2, 2008
- Mirant
 - 3 Tests successfully completed
 - GE Frame 7b technology (65 MW)
- FirstEnergy
 - 1 test completed
 - GE Frame 5 technology (25 MW)
 - 60% NOx reduction

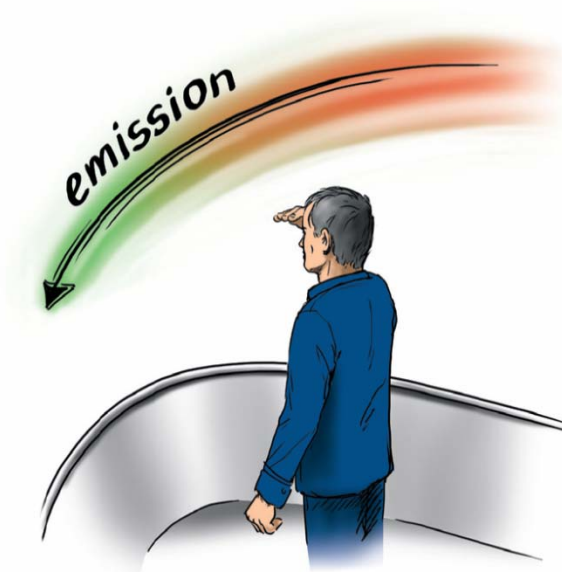


Application Tests – Boilers

- Delta Chemical Corporation
 - Baltimore , MD
 - Cleaver-Brooks 150HP fire-tube boiler (1970)
 - Calibration successfully completed in 2-3 hours
 - SO₂ essentially eliminated
- Catoctin Mountain Growers
 - Detour, MD
 - Cleaver-Brooks 200HP fire-tube boiler (2000)
 - Calibration successfully completed in 1-2 hours
 - 45% reduction in NO_x emissions
 - SO₂ essentially eliminated
- Progress Energy
 - Bartow, FL
 - Large Utility boiler, steam plant for electricity generation
 - Very good ignition and combustion stability



Environmental



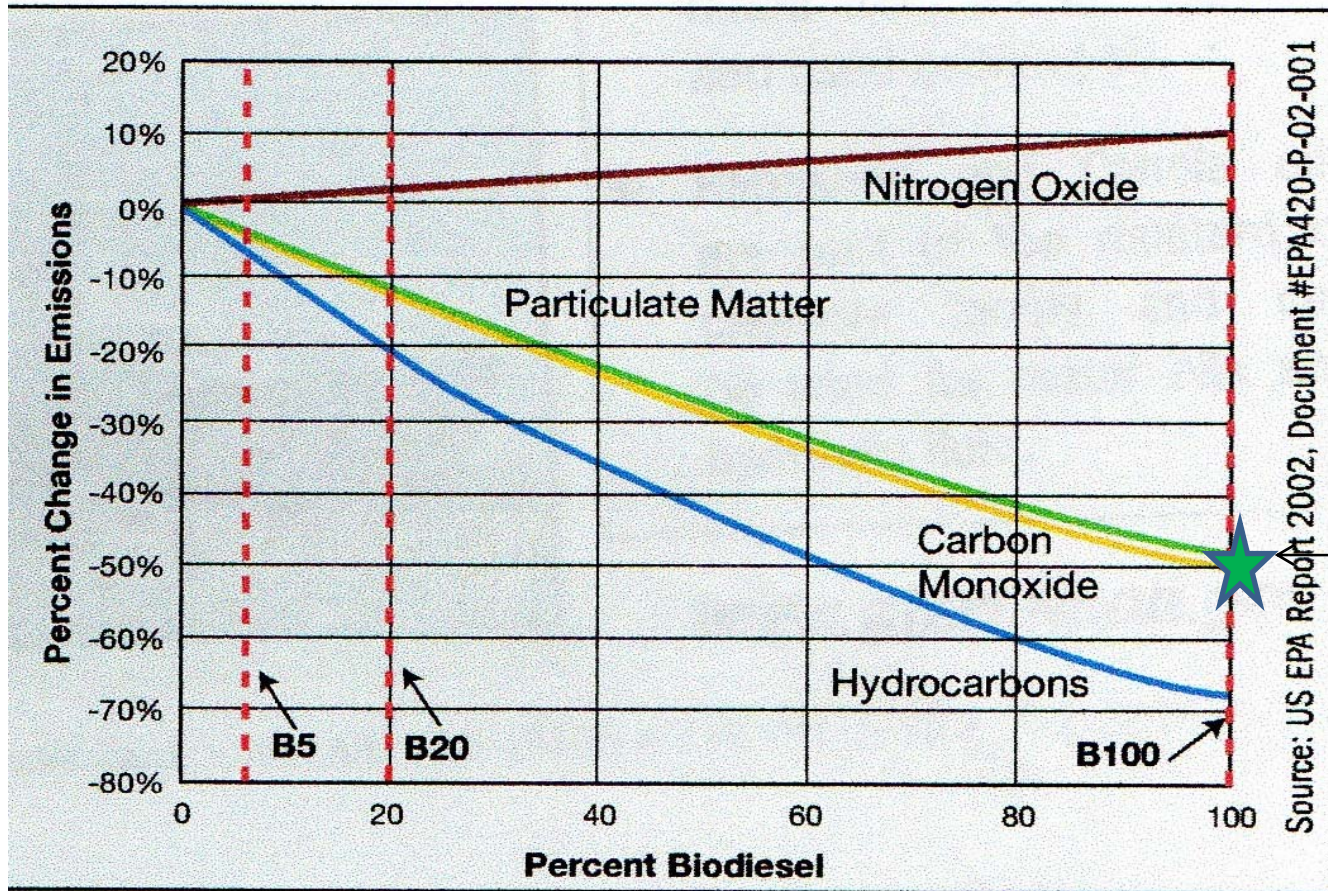
Environmental Advantages

- NGB's carbon footprint is very favorable to other fuel technologies due to our formulation technology, manufacturing processes, and combustion performance.
- Significantly lower SO₂ emissions than diesel:
 - Reduces emissions that can cause acid rain
 - Eliminates formation of sulfates which are a significant component of particulate matter emissions
- Proven Significantly lower NO_x (40-60%) emissions than existing distillate fuels
- Non toxic, readily biodegradable
- No smell or odor
- Production process requires very little energy and yields little, if any, wastes, emissions or discharges



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Typical Biodiesel Emissions



Regulatory Events

- Federal efforts on:
 - Renewable electricity standards
 - Carbon reduction
 - NO_x and SO_x reductions

REC Value

- Renewable Energy Certificates: each state operates independently
- Indicative REC values in 2009 as per Evolution Markets.

State	Bid Price	Offer Price
MA Class I	\$17.50	\$22.00
MA “New” REC	\$19.55 avg.	
MD Tier I	\$1.00	\$2.00
NJ Class I REC	\$5.00	\$6.50
CT Class I	\$13.55 avg.	

NOx and SOx Credits

- Emissions tests conducted with NGB's fuel show a 40% or greater reduction in NOx
- Near 100% reduction in SOx
- NOx and SOx Credits (as reported by Platts, week ending April 3, 2009)
 - \$400 to \$500/ton NOx
 - \$55 -\$60/ton SOx
- EPA indicated high likelihood of acceptance of NGB's fuel to reduce emissions under CAIR or NOx SIPCall
- Petition EPA under 40 CFR Part 75 Appendix D Methodology

Carbon Value

- Chicago Climate Exchange or Chicago Climate Future Initiative possible trading platform
- CCFE European carbon trade @ \$18.60 / metric ton
 - \$0.16 / gallon compared to coal
 - \$0.14 / gallon compared to #6 fuel oil
 - \$0.13 / gallon compared to #2 fuel oil
- At \$50 / metric ton
 - \$0.44 / gallon compared to coal
 - \$0.39 / gallon compared to #6 fuel oil
 - \$0.36 / gallon compared to #2 fuel oil

Summary

- Truly renewable & sustainable biofuel
- Small Carbon Footprint
- Cost competitive with existing fuel oil
- Simple fuel switch
- Significantly lower emissions
- Carbon, NOx & SO2 value
- Made in Maryland
- Available now



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