

BUSING ON BEANS!

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Monongalia County Schools

- 10,300 Students – 8,300 ride a bus 2x/day
- +1.5 million miles traveled each year
- +275,000 gallons of fuel used annually
- 100 bus fleet
- Rural, city, hilly terrain



What was the appeal of Biodiesel?

- Requires no engine modification
- Does not affect engine performance.
Just pour and go!
- As easy to transition out of as it is to implement.
- Achieve emissions reductions across an entire diesel fleet.
- An immediate solution.
- No new refueling infrastructure.
- All natural, renewable, and dissolves in water faster than sugar.



What was the appeal of Biodiesel?

(continued)

- It contains no sulfur.
- It takes the black smoke from the back of a vehicle and makes the exhaust smell faintly of *Popcorn!*
- Lowers toxic emissions and particulate matter
- Safe to store, and has a high flash point
- Can be used with Ultra Low Sulfur diesel, particulate traps, catalytic converters, or diesel hybrid electric vehicles.
- Biodiesel provides direct aid to US farmers.
- It is available right now anywhere in the country.



STATE ALLOCATION

“85% of actual transportation expenditures for maintenance, operation and related costs, exclusive of all salaries, for school districts whose ratio of student population to square miles is greater than the state average and 90% for the school districts whose ratio is less than the state average; ***with allowance being 95% for that portion of the district’s bus fleet that uses alternative fuels;***”

State of WV Executive Summary of the Public School Support Program for the 2004-05 Year – Step 4



Biodiesel Health Properties

- Reduces particulate emissions
- Reduces targeted compounds thought to cause cancer:
- B100 Reduces cancer risk from particulate matter by 94% compared to diesel



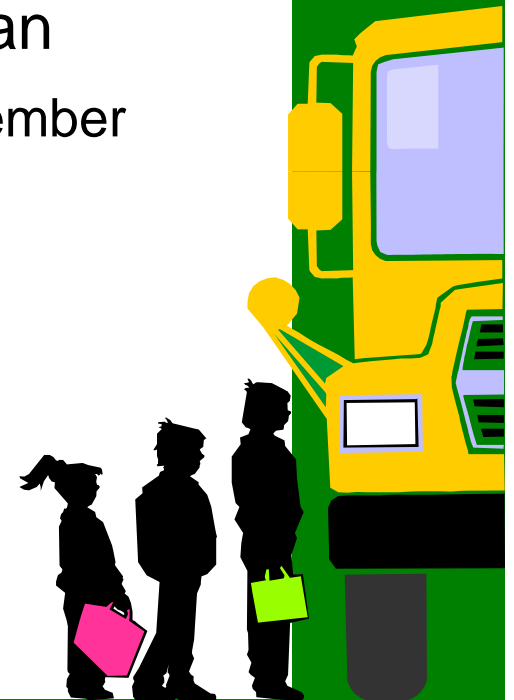
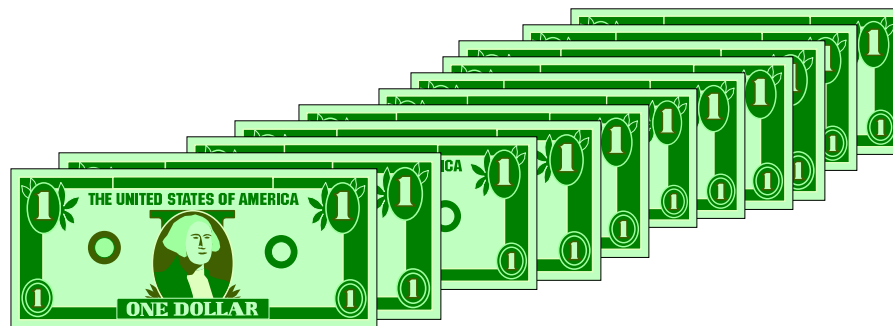
Biodiesel makes Great PR

- Consumers can smell and see the difference
- “Powered by Soybeans!”
- “This vehicles gets 250 miles per acre”
- “The French Fry Mobile!”



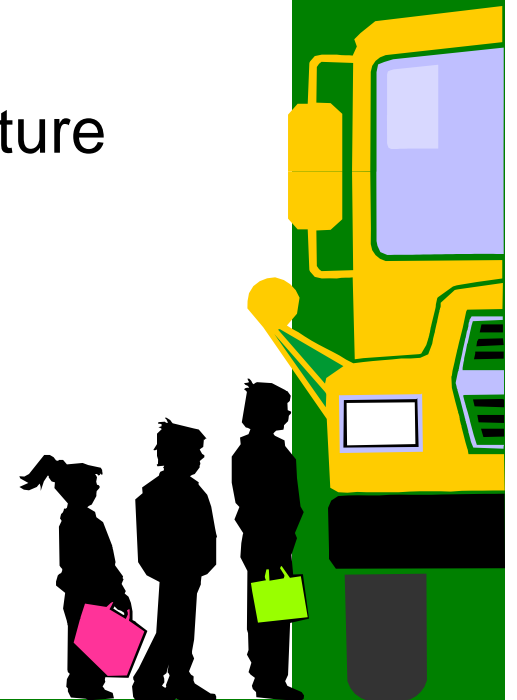
Biodiesel Costs

- Price is variable depending on level of use.
(Storage and freight are large components)
- Average mpg same -- Biodiesel vs. Diesel
- Costs comparisons should be on B20.
- \$1/gallon tax credit to vendor
- A good estimate is \$0.15/ gallon more than diesel (This does vary with diesel prices-- December 2007 \$3.04 -- Diesel was \$3.69)



Why else is biodiesel cost effective?

- No refueling infrastructure
- No engine modification
- No additional parts to purchase
- No additional mechanic training
- No precautionary or safety infrastructure
- No refueling labor downtime



Monongalia County Experiences

- Started using B20 in 2003
- Started with new tank when we moved to a new facility
- Changed fuel filters on old buses after 3,000 miles
- New buses did not require filter change
- Shouldn't have told drivers
- Higher allocation has meant an additional \$500,000 to county budget
- Average mpg same Biodiesel vs. Diesel



Biodiesel Use in WV School Buses

- Barbour
- Berkeley
- Boone
- Brooke
- Calhoun
- Clay
- Hancock
- Jefferson
- Kanawha
- Marion
- Monongalia
- Ohio
- Lincoln
- Logan
- Randolph
- Ritchie
- Roane
- Upshur
- Wirt
- Wood

20 of 55 county school districts have adopted



Biodiesel Usage

- The 20 counties used approximately 2.5 million gallons of biodiesel fuel 2006-2007.
- If all used B20, over 600,000 fewer gallons of diesel would have been used
- WV school transportation used 6 million gallons of fuel in 2007 fiscal year.
- The biodiesel being used today meets ASTM D6751 standards



How can we increase use?

- Hydrogen, coal gasification and liquidation won't be ready for mass use of many years— Biodiesel blend is ready NOW! Promote it!
- Executive order for all state vehicles to use biodiesel
- Tax incentive for sale at retail pump
- Incentives for processing facilities in state
- Promote grants to large users (i.e. Allegheny Energy)



Questions?

