



GM and Bio Fuels

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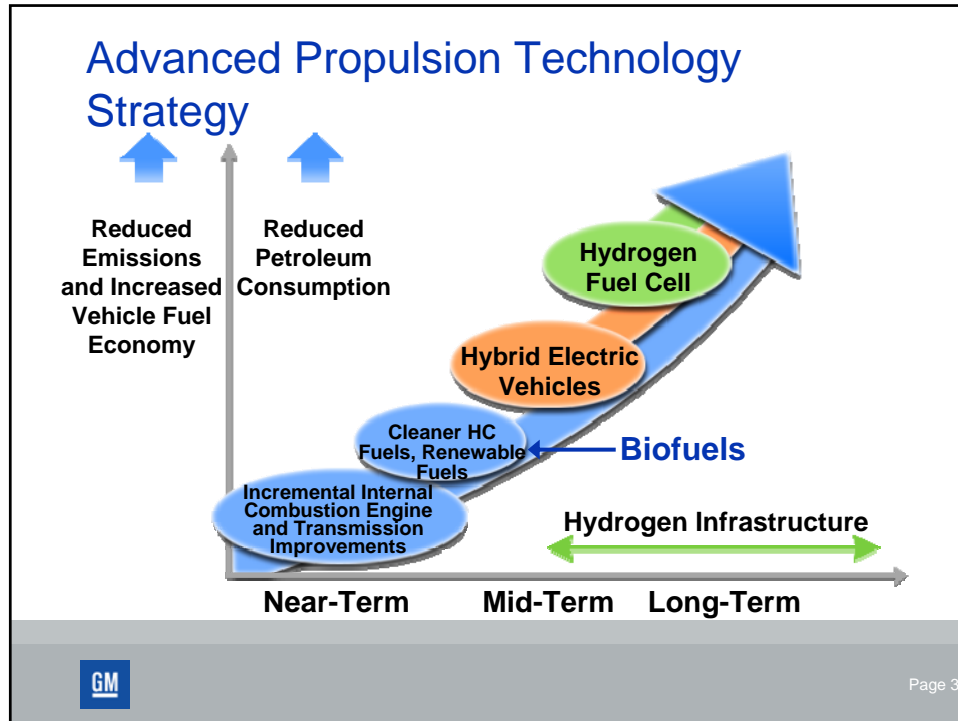
October 2, 2006



General Motors Commitment

- Implement Propulsion Technologies that improve fuel efficiency and reduce environmental impact
- Work to assure that new propulsion and fuel technologies are linked
- Promote the use of alternative fuels that make sense economically and environmentally including biofuels and hydrogen





GM Perspective on Ethanol

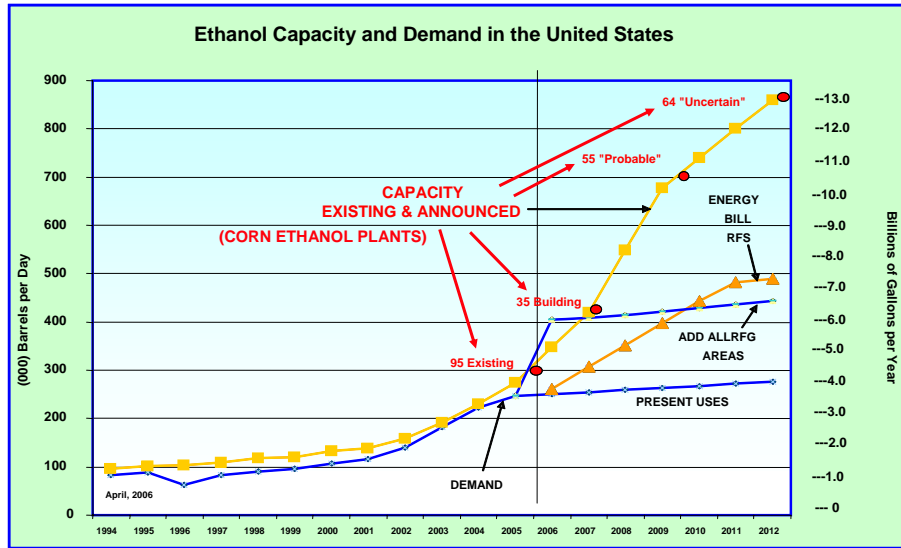
Opportunity

- Renewable.
- Reduce U.S. dependence on oil – “Grown in America” appeal.
- High octane consumer alternative to gasoline
- Potential to displace significant amounts of petroleum.
- Greenhouse gas benefit – depending on production methods and raw materials employed.
- Infrastructure issues much simpler and less costly than gaseous alternative fuels (CNG, LPG, Hydrogen).
- U.S. Job Creation

Challenge

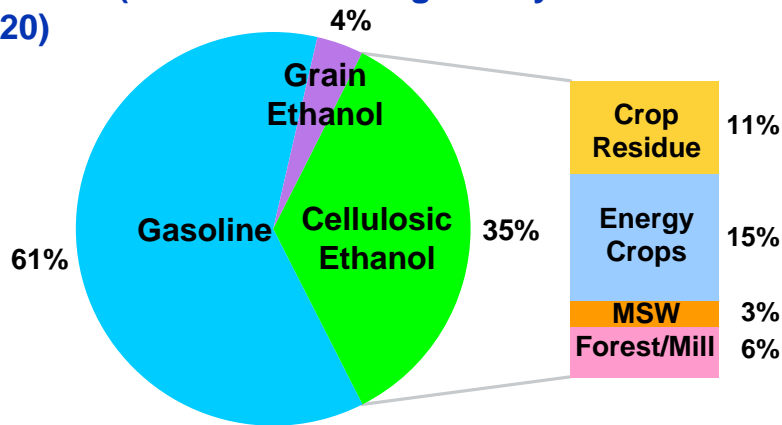
- Low concentration ethanol blends (E10, E6) present emission challenges.
- High concentration blend (E85) consumer availability is limited, infrastructure needed.
- Reduced volumetric fuel economy (miles per gallon) immediately observed by customer in typical E85 Flex Fuel Vehicles (FFVs).
- Near term pricing

U.S. Fuel Ethanol Growth



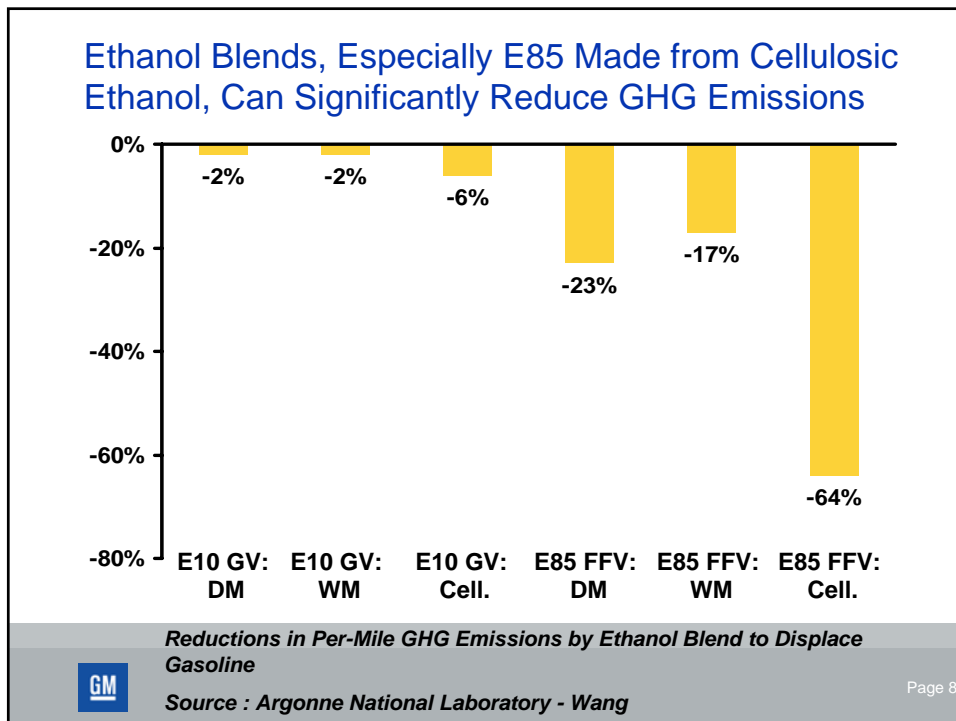
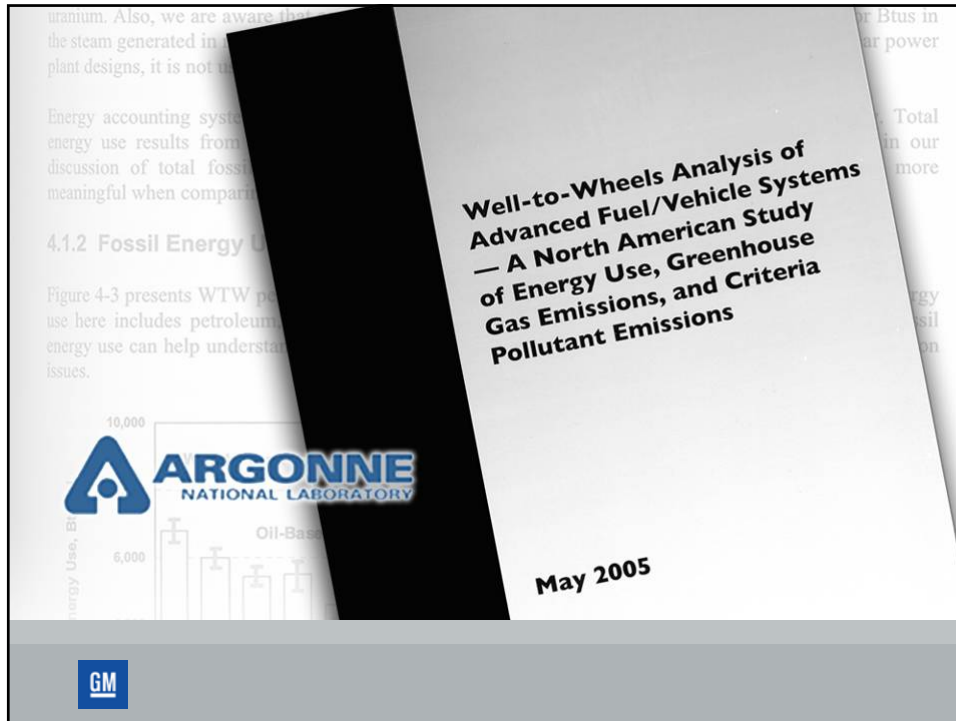
Sources: GM Internal and Jim Jordan and Associates, April 2006

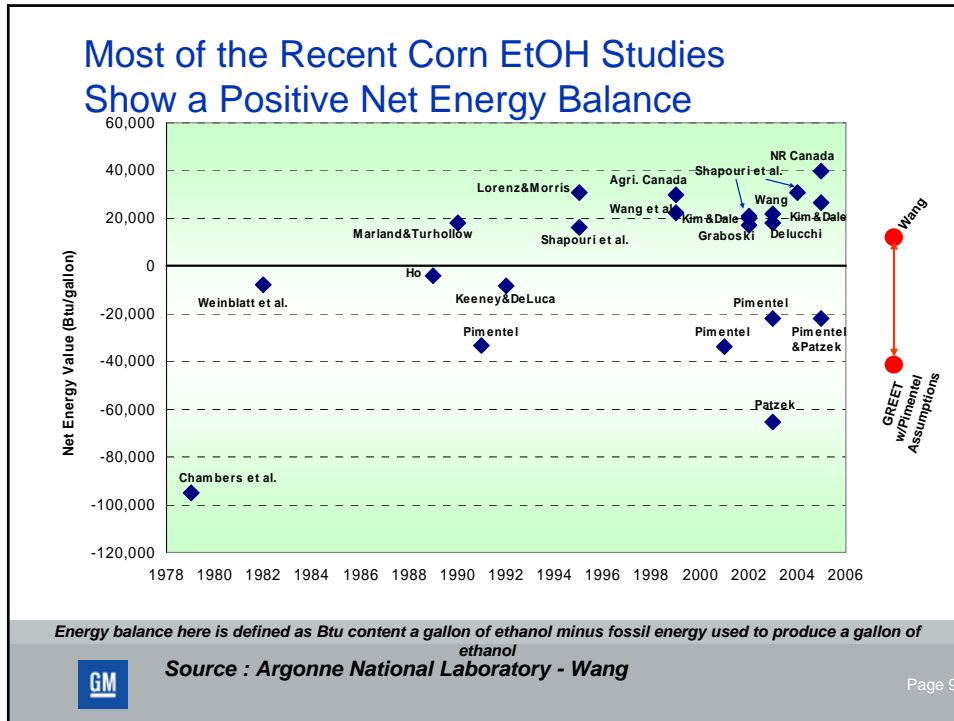
GMR Practical Estimate of Potential U.S. Ethanol (Portion of U.S. Light-Duty Fuels - Year 2020)



All percentages are on an energy equivalent basis
 Based on University of Toronto data







- ## 2007 Model Year U.S. FFV offerings
- 2007 E85 vehicles (16 Models):**
- Chevrolet Silverado 5.3L V-8 engine (LMG)
 - GMC Sierra 5.3L V-8 engine (LMG)
 - Chevrolet Avalanche 5.3L V-8 engine (LMG or LC9)
 - Chevrolet Tahoe 5.3L V-8 engine (LMG)
 - GMC Yukon 5.3L V-8 engine (LMG)
 - Chevrolet Suburban 5.3L V-8 engine (LMG or LC9)
 - GMC Yukon XL 5.3L V-8 engine (LMG or LC9)
 - Chevrolet Impala 3.5L V-6 engine (LZE)
 - Chevrolet Monte Carlo 3.5L V-6 engine (LZE)
 - Chevrolet Express 5.3L V-8 engine (L59)
 - GMC Savanna 5.3L V-8 engine (L59)
 - Chevrolet Silverado Classic 5.3L V-8 engine (L59)
 - GMC Sierra Classic 5.3L V-8 engine (L59)
 - Chevrolet Uplander 3.9L V-6 engine (LGD)
 - Pontiac Montana 3.9L V-6 engine (LGD) (Offered only in Canada and Mexico by special order)
 - Buick Terraza 3.9L V-6 engine (LGD)
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Page 10

Marketing



- Yellow cap
- Flex fuel badging
- Introduced e85- TV, print and radio campaign "Live Green Go Yellow"
- Educational Livegreengoyellow.com web site created
- New e85 autoshow exhibit incorporated
- LiveGreenGoYellow street marketing teams
- Extensive dealer training and IDL broadcast
- Chevy and GMC in-showroom point-of-sale materials
- Earth day initiative
- Celebrity placement of Chevy and GMC Flex Fuel vehicles
- Owner direct mail e85 campaign
- Extensive in-school (grades 5-8) education program



LiveGreenGoYellow.com

- Record 1,500,000 site visits in 2 weeks; 2/19 – nearly 100,000 visits/day; achieved 64% more visits in a 2-week period than all of 2005 for GM Ability
- Exit rate of 20% vs. 35% average indicating high interest

E85: the 411 cornulator

video cobcast

stalk car race

get stuff

go yellow links

E85 ON TV: WATCH

E85 IN PRINT: SEE

E85 is here

Thanks to GM's pioneering efforts to make cleaner E85 ethanol a viable alternative to gasoline, there are already more than 1.5 million GM FlexFuel vehicles on the road that are capable of running on E85. Discover how E85 ethanol can change our landscape for the better.

FlexFuel E85 ETHANOL

E-mail this link

Only GM



Chicago Auto Show



West to East Partnership Advertising



Marketing, Communications, and Partnering

livegreen
goyellow.com



West to East Partnership

Agreements

- | | | |
|--|-----------|----|
| • GM & VeraSun | May, 2005 | SD |
| • GM, Chevron & State of CA | Jan, 2006 | CA |
| • GM & VeraSun, GM & Shell | Feb, 2006 | IL |
| • GM & VeraSun | Mar, 2006 | MN |
| • GM, Kroger, Abengoa & State of TX | Mar, 2006 | TX |
| • GM, Meijer, CleanFuelUSA & State of MI | Apr, 2006 | |
| • GM, Meijer & State of Indiana | May, 2006 | IN |
| • GM, Kroger & State of Ohio | July 2006 | OH |
| • GM, VeraSun & State of PA | July 2006 | PA |
| • GM, Inland Food & State of Florida | Aug 2006 | FL |



2006 Ethanol Activities

Governors Ethanol Coalition



- Implemented 28 vehicle E85 FFV demonstration fleet in 2005
- RFA, NEVC, CFDC included in demonstration fleet deployment
- Supported significant GEC vehicle media events in 10 states
- Extension and refresh announced in Texas in March 2006

