

# Considerations for Ethanol in North Carolina

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# United Energy Distributors, Inc.

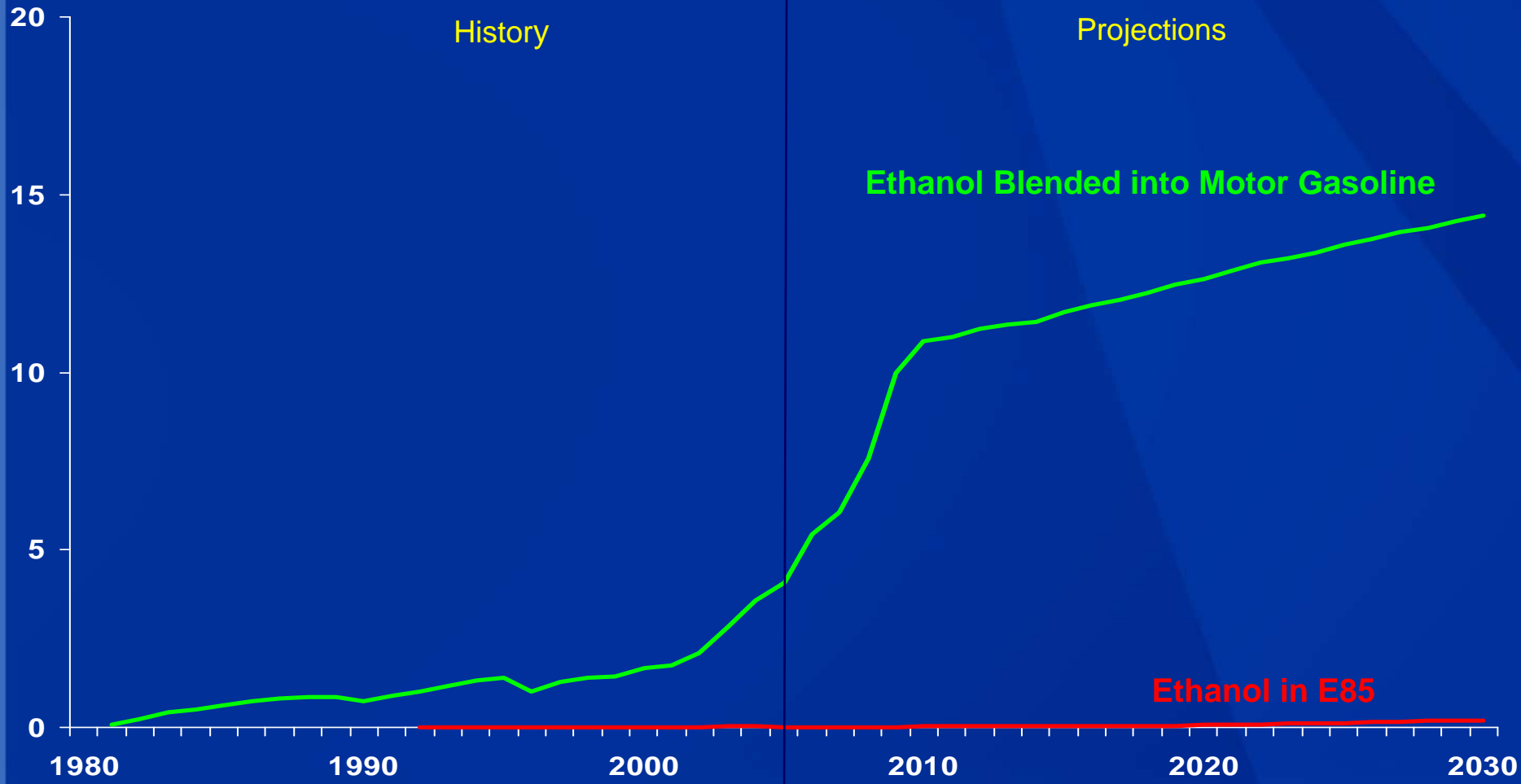
## Company Highlights

- Founded 1995
- Large Wholesale Distributor of gasoline, diesel, and alternative fuels
  - In excess of 125 million gallons distributed annually
  - NC, SC, GA, TN, AL
  - Currently 3 bulk plants, Total Storage in excess of 245,000 gallons
    - 85,000 gallons of alternative fuel storage
  - Bio Fuel Facility with 340,000 gallons of storage & rail access
  - 13 Trucks
- Began distribution of alternative fuels in 1999
- October 2001 opened nations first alternative fuels station
- SC Statewide Contract for biodiesel
- Biodiesel and ethanol blended fuels supplied to many cities and counties
- Alternative fuel supplier to Department of Energy and Department of Defense

## U.S. Ethanol Production, 1981-2030 (billion gallons)



## U.S. Ethanol Consumption as E85 and Blended with Motor Gasoline, 1981-2030 (billion gallons)



## Current Reality

- Ethanol blended fuels not widely available at NC petroleum terminals
  - Requires investment in tanks and truck loading infrastructure
  - Requires split loading of trucks
    - Adds approximately \$0.0050 per gallon in cost
    - Creates inefficiency in trucking operations
- Ethanol can't be shipped via pipeline
  - Rail or truck are alternatives
  - Adds cost to distribution, eroding economic benefit to marketers and consumers

## Current Reality

- Major oil companies working to make only ethanol blended fuels available at petroleum terminals
  - Prevents local and regional companies from gaining the economic advantage of blending
  - Major oil retains ~50% of ethanol benefit
    - Reduces benefit to consumers
    - Removes local and regional company opportunities
    - Don't they make enough already?
- Negative consumer perceptions
  - Drivability impact
  - Significantly reduced fuel economy for E10
    - Confused with E85 (~3% vs. ~34%)

## Other Considerations

- Tank Cleaning & Product Handling Requirements
  - Recommend cleaning all tanks
  - Tanks must not have chronic water problems
  - Ethanol acts as a cleaning agent in tank
  - Without tank cleaning:
    - Rust, dirt & particulates in tanks will break loose
    - Frequent filter changes likely for 3-6 months
  - Reduce tank inventory to 10% of capacity
  - Install 10 micron dispenser filter designed to detect phase separation
  - Water Finding Paste
  - Trying to detect water & ethanol blend, not just water
  - Use paste designed for ethanol blends

## Other Considerations

- Impact of import tariff expiring in January 2009
- Impact of Ethanol tax credit expiring in December 2010
- E85 is not an equal economic purchase for consumers today
  - Carefully evaluate investment in E85 pumps
- Significant environmental benefits of ethanol blended fuels
- Ethanol blended fuels sold in most major metro areas, all of CA
- Purchase ethanol that meets ASTM #D4806
- Currently no pump labeling requirements in NC