



Green Plains

**14<sup>th</sup> Annual Farm to Market Conference**

May 15, 2019



# Forward-Looking Statements

This presentation includes forward-looking statements that reflect management's current views of company performance, industry conditions and future economic environment. These statements are based on assumptions and various factors that are subject to risks and uncertainties.

Green Plains has provided additional information about such risks and uncertainties that could cause actual results to differ materially from those expressed or implied in its reports filed with the Securities and Exchange Commission. Green Plains is not obligated nor intends to update its forward-looking statements at any time unless it is required by applicable securities laws.

Unpredictable or unknown factors not discussed in this presentation could also have material adverse effects on forward-looking statements.

# First Quarter 2019 Results

- Results of operations
  - Net loss of \$42.8 million, or \$(1.06) per diluted share
  - EBITDA of \$(18.7) million
  - Cash, cash equivalents and restricted cash of \$273.2 million; availability under revolving credit agreements of \$472.8 million at March 31, 2019
- Ethanol production segment
  - Produced 155 million gallons of ethanol, or 56% of capacity
  - Consolidated ethanol crush margin was \$(12.8) million, or \$(0.08) per gallon
- Business Activity
  - Green Plains engages ICM, Inc. to accelerate opex equalization plan. Over the next 18 months, Green Plains to return to being one of the lowest cost production platforms in the industry
  - Portfolio optimization plan continues to make progress on the sale of additional ethanol assets and the initiative to take the cattle feeding business into an off-balance sheet joint venture

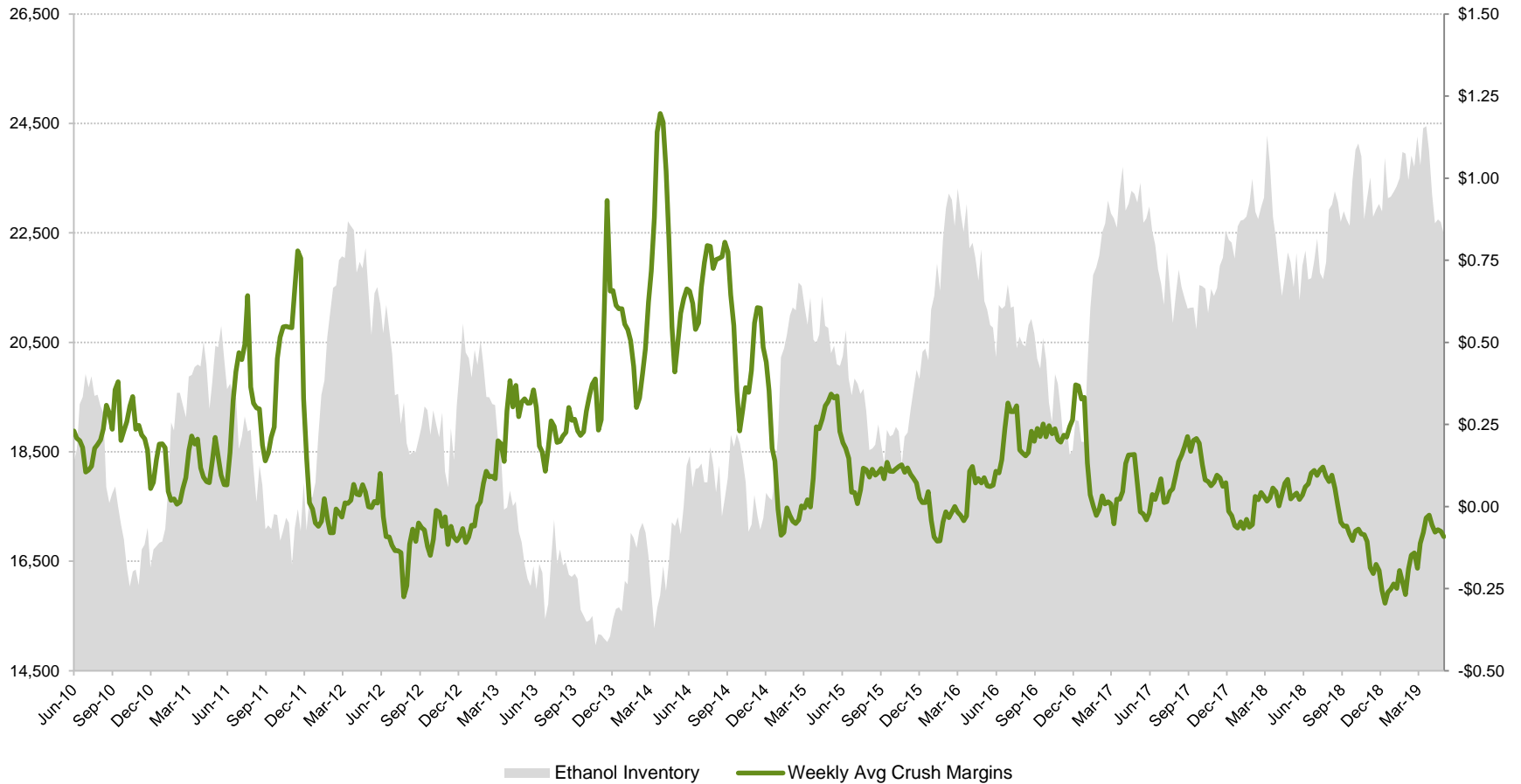
# Critical Issues Facing the Ethanol Industry

- Trade
  - Critical to get trade deal with China done
  - China rumored to purchase 3 million tons (790 million gallons) of ethanol, 10 million tons of distillers grains and 3 million tons of corn
  - Pressure Brazil to remove current 20% tariff on U.S. ethanol
  - EU Tariff was lifted effective May 15, 2019
- E15
  - EPA Administrator Wheeler finishing RVP ruling on time is crucial for the industry
  - Significant retailer interest once the rule is permanently in place
  - Important to get higher blends in the U.S. for more domestic consumption
- Small Refinery Exemptions
  - Former EPA Administrator granted a total of 54 waivers for 2016 and 2017, stripping 2.6 billion gallons from ethanol mandate. Loss of 1 billion bushels of corn demand
  - There are 40 applications pending for the 2018 compliance year, which, if granted, would represent another ~2B gallons waived

# Margins in the Current Environment

(thousand barrels)

(\$ per gallon)

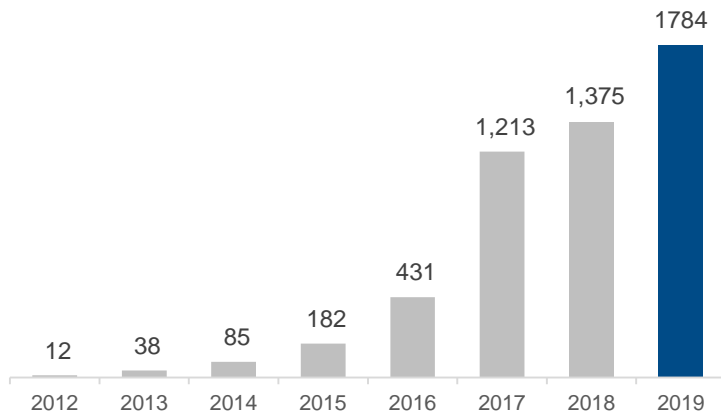


Source: Energy Information Administration as of February 2, 2019

# Driving Demand Through Higher Blends

- E15 sold in 31 states at more than 1,784 retail stations as of May 2, 2019; expected to reach 2,000 by year end
- Approximately 175 million gallons of ethanol sold through E15 initiative in 2018, more than double of what was sold in 2017
- We expect 200-250 million gallons of E15 sales in 2019
- RVP waiver for E15 year round expected by June, 1
- Automakers approve the use of E15 in more than 90% of 2019 models

US Retail Stations Selling E15<sup>(2)</sup>



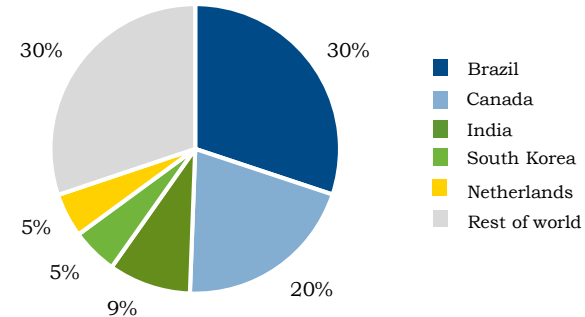
1) Based on 143.6 billion gallons per year of gasoline consumption  
2) Source: Growth Energy as of May 2, 2019

# and Through Expanding Export Markets

## Ethanol Exports

- Anticipate 1.7 billion gallons of exports in 2019, without China demand, in line with the 1.7 billion gallons exported in 2018
  - Brazil and Canada accounted for ~50% of exports
  - EU, India, Japan & Mexico are growing markets in 2019

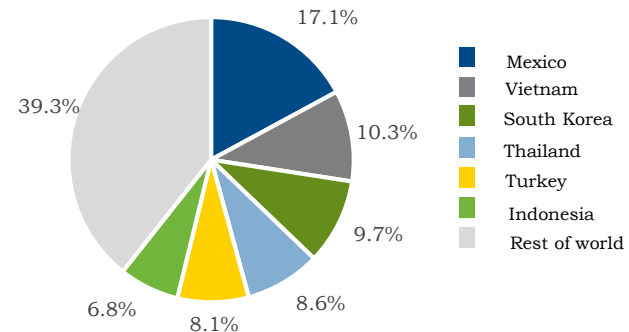
**Domestic Ethanol Exports (gallons)**



## Distillers Exports

- 11.9 million metric tons of DDGs exported in 2018, or ~25% of production, 7% over 2017
  - Mexico, Vietnam, South Korea and Thailand accounted for ~45% of exports
- Anticipate exports to be similar in 2019, China could be buyers again and add export growth

**Domestic Distillers Exports (tons)**



Source: Bloomberg and USDA Foreign Agriculture Service as of Mar 6, 2019

# Prove Value & Prepare for the Next Ten Years

- Portfolio Optimization Plan Update
  - We continue to make progress on completing our portfolio optimization plan
    - Working with interested parties in both our ethanol plant sales process and the cattle off-balance sheet initiative
    - Eliminated \$20+ million of controllable expenses on an annualized basis
    - Our high-protein feed technology installation in Shenandoah, Iowa remains on track to begin producing 50% protein feed product in the fourth quarter of this year
    - Launching Project 24

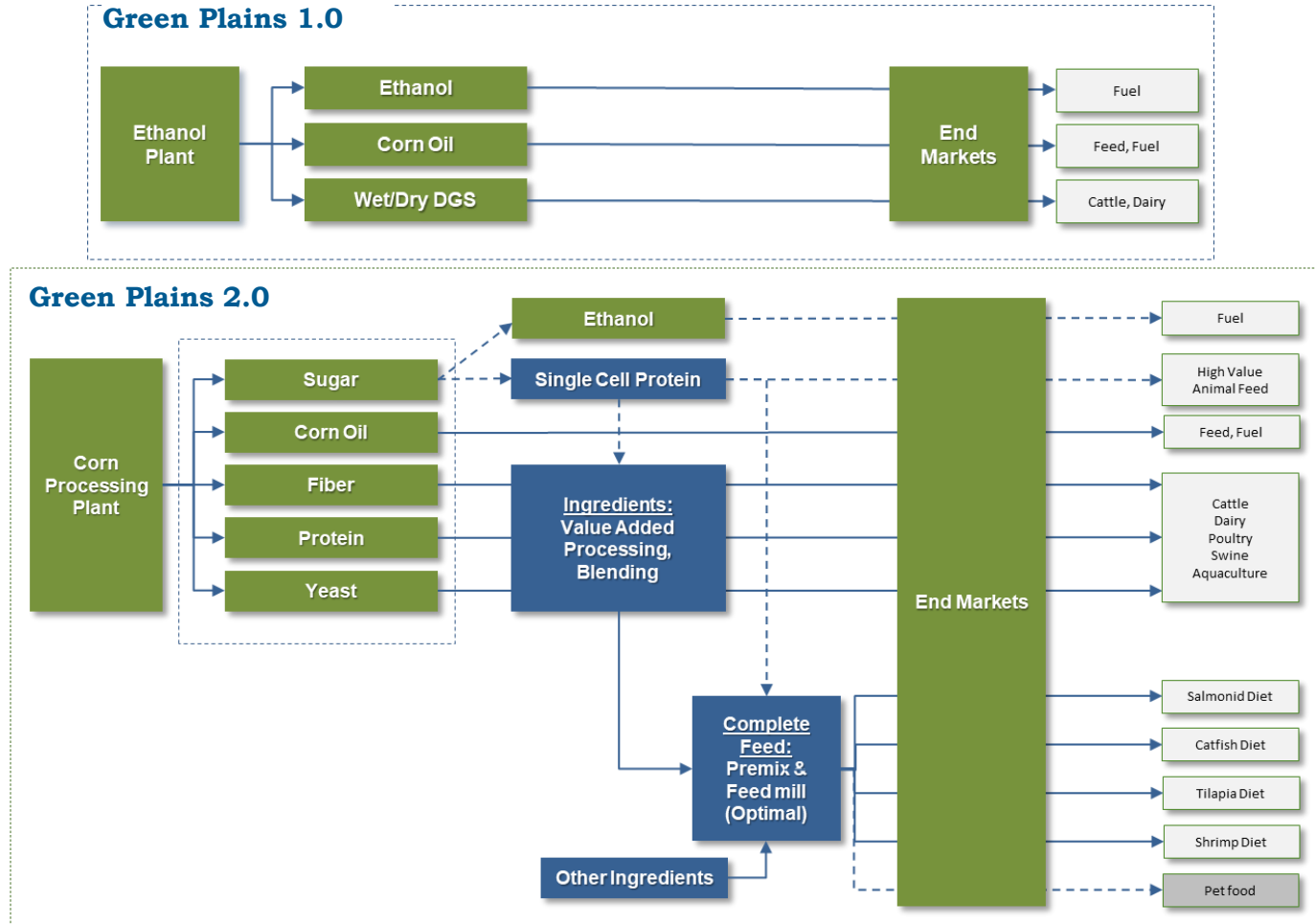


# Project 24 – Opex Equalization Plan

- Our focus is on achieving and maintaining an industry leading lowest cost operator to ensure long-term viability and competitiveness in an oversupplied ethanol market
- We have identified significant organic operational cost savings throughout the platform in the first stage of our opex equalization plan
- The goal is to achieve a \$.24/gallon opex. at a 90% run rate at each facility
- As we move into the next phase, we have developed an exclusive partnership with ICM Inc, to drive our non-ICM plant expense per gallon significantly lower
- We believe this will be equal to the best-in-class plants across the industry and would again squarely place Green Plains as one of industry's low cost operators

# Green Plains 1.0 vs. Green Plains 2.0

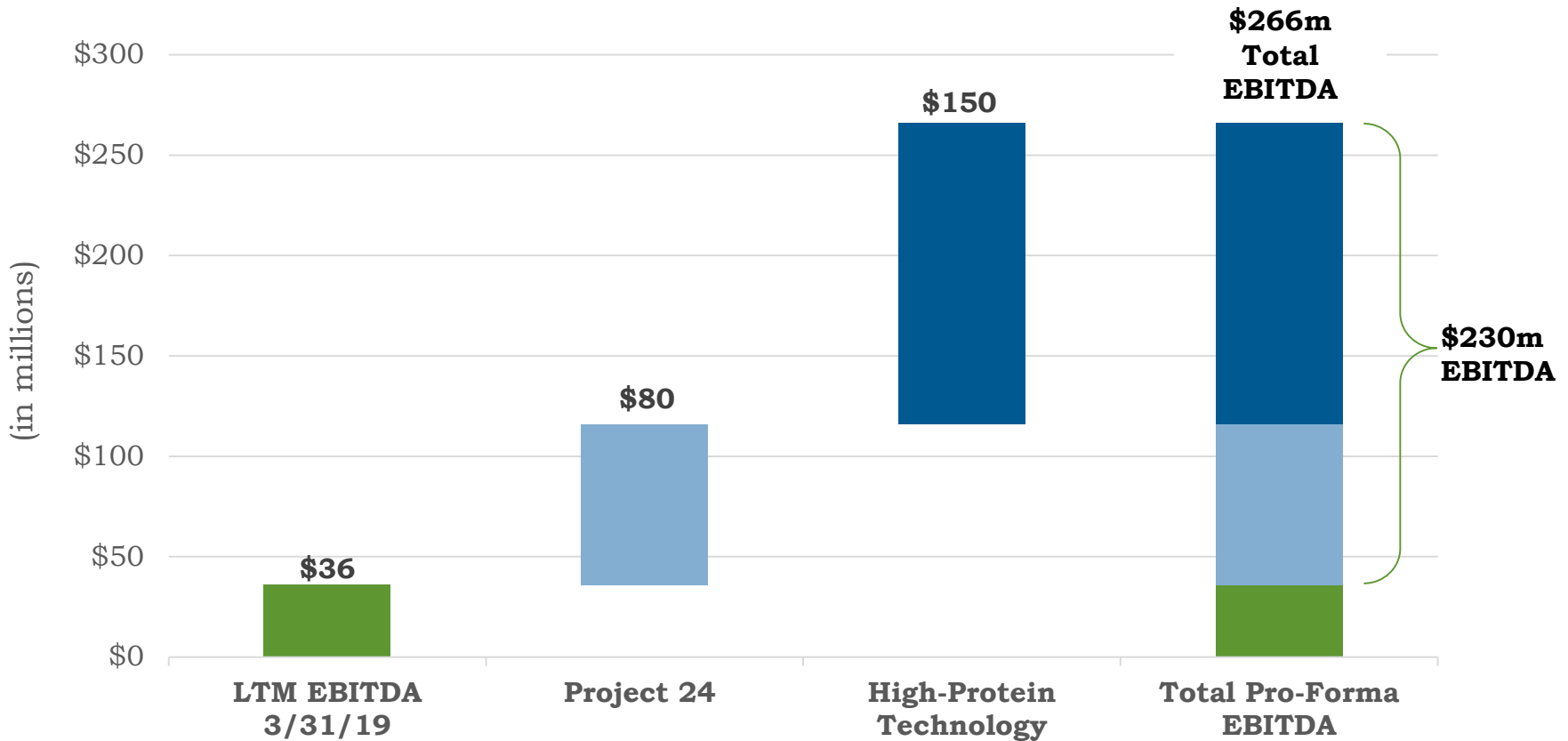
Through application of new technologies to the dry mill corn process, Green Plains' corn milling platform becomes a production engine for other high value ingredients needed across multiple domestic and international markets.



# Ethanol Plants Will Become Protein Factories

- Green Plains is currently pursuing two primary technologies that will significantly improve the profitability of our existing ethanol plants.
- These co-products open up new markets (poultry and aquaculture) and provide margin expansion versus traditional feed byproducts.
- Depending upon the technology and the plant, investment can range from \$20-\$50 million per plant, but improve the crush margin by a baseline minimum \$0.12 to \$0.15 per gallon with significant upside based on current market.
- Our goal is for our company to be less dependent on ethanol and earn more revenue and income from stable hedge-able high-protein feed

# What does running our assets at 90% + Project 24 and high-protein technology do for our platform?



## Assumptions:

- Assets produce at 90% of capacity on 1.123 billion gallons
- Project 24 with operating expense of \$0.24/gallon across the platform
- Crush margin lift of \$0.15/gallon for high-protein technology
- Project 24 ~ \$58 million & High-Protein ~\$300 million of capital investment based on 13 ethanol plants

## **In Closing**

Green Plains has a tremendous opportunity to capture significant value imbedded in our platform in terms of cost efficiencies and technological advances that will transform our company over the next 18 to 36 months



# Green Plains

**Green Plains Inc. | NASDAQ: GPRE | [www.gpreinc.com](http://www.gpreinc.com)**

**Green Plains Partners LP | NASDAQ: GPP |**

**[www.greenplainspartners.com](http://www.greenplainspartners.com)**