



**PACIFIC ETHANOL, INC. (NASDAQ: PEIX)** is a leading producer and marketer of low-carbon renewable fuels in the United States. Pacific Ethanol owns eight biorefineries with a combined production capacity of 515 million gallons per year of fuel grade ethanol. Through its subsidiary, Kinergy, Pacific Ethanol markets and trades ethanol with a combined marketing volume of over 800 million gallons per year.

**Stock Price (as of 7/28/16):** \$6.78  
**52-week Price Range:** \$2.41-\$8.26  
**Shares Outstanding (as of 5/9/16):** 42.8M  
**Market Cap:** \$290.3M  
**Fiscal Year-end:** Dec. 31<sup>st</sup>



## Serving Multiple Markets

### Western Biorefineries

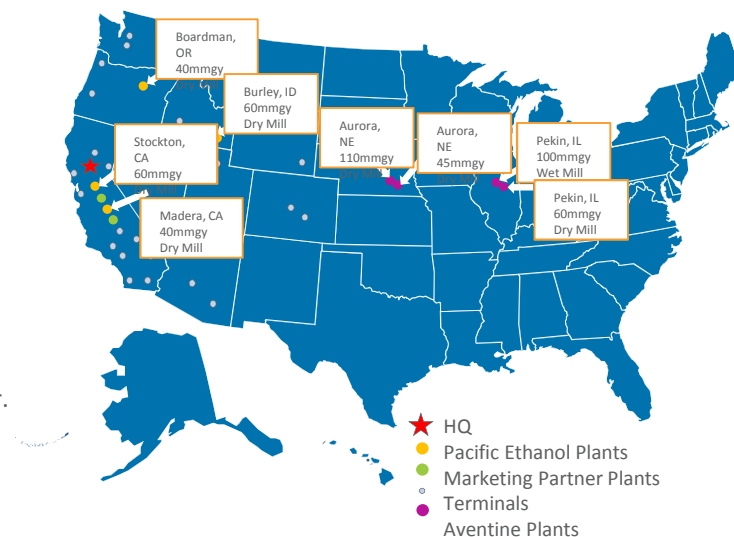
*Strategically located in the feed & fuel markets they serve*

- Stockton, CA – 60 mmgy
- Madera, CA – 40 mmgy
- Boardman, OR – 40 mmgy
- Burley, ID – 60 mmgy

### Midwestern Biorefineries

*Located near feedstock sources and directly linked to strong markets for ethanol & co-products*

- Aurora, NE – 110 mmgy
- Aurora, NE – 45 mmgy
- Pekin, IL Wet Mill/Yeast – 100 mmgy & 55 mlbs/yr.
- Pekin, IL Dry Mill – 60 mmgy



## Q2'16 Financial Highlights

- Net sales were a record \$422.9 million
- Total gallons sold were a record 233.2 million
- Gross profit was \$17.7 million
- Operating income was \$11.6 million
- Net income was \$4.7 million or \$0.11 per share
- Adjusted EBITDA was \$20.4 million

## Fundamentals Support Long-term Demand

### Octane Advantage

- Refiners blend ethanol to increase octane & lower tailpipe emissions
- Ethanol is the lowest cost octane source available on the market
- Slate of crude oil supply and higher demand for premium fuel creates octane shortage

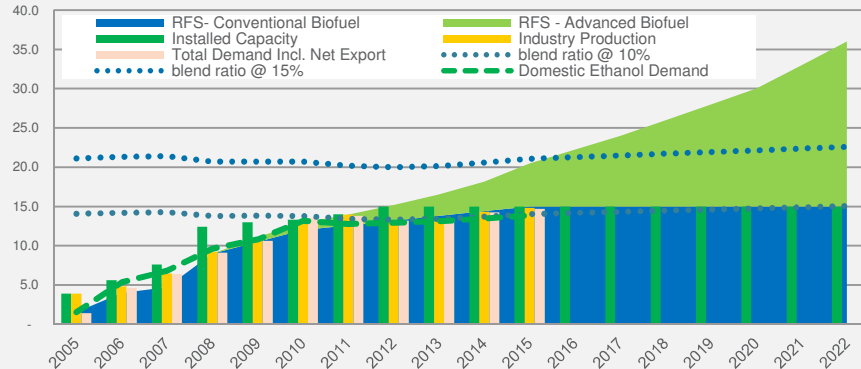
### Exports Create Growing Opportunity

- Export levels are on track to exceed 2015 levels with expectations of up to 1BG of exports in 2016
- Global demand is growing 2-3% annually as global markets incorporate environmental & performance benefits
- Approximately 30 countries have renewable fuel standards or targets

## Regulations Supporting Industry Production

### The Renewable Fuel Standard (RFS)

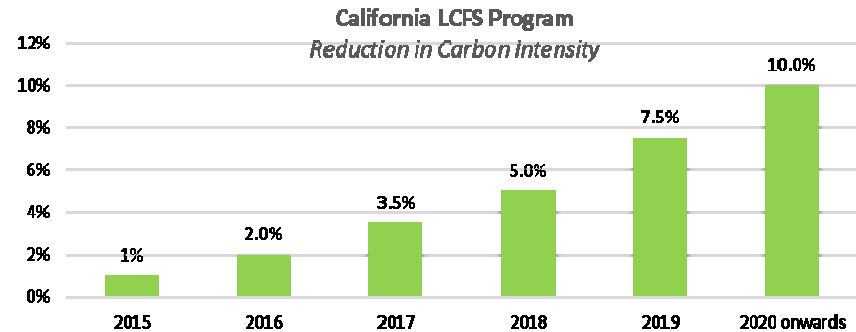
- Enacted as part of the Energy Policy Act of 2005 and expanded in 2007
- RFS is supporting increased ethanol blend rate with gasoline
- Low-carbon fuel reduces greenhouse gas impacts
- Advanced biofuels building incremental supply



Source: Renewable Fuels Association.

### The Low-Carbon Fuel Standard (LCFS)

- The California Air Resources Board (CARB) re-adopted the LCFS with the revised program effective Jan. 2016
- Oregon LCFS Initiated Jan. 2016 for a 10% reduction in carbon intensity by 2025



## Implementing Plant Improvement Initiatives

Lower operating costs

Reduce energy demand

Increase yields

Low-cost operating platform

*Focusing on plant investments that improve performance, reduce carbon emissions and represent the highest value to the company*

- Installing industrial scale membrane system at Madera plant
- Initiated trials of Enogen (hybrid) corn at Madera plant
- Began producing cellulosic ethanol at Stockton plant
- Installing cogeneration technology at Stockton plant

## Growth Initiatives

### Leverage diverse base of production assets

Expand share of the renewable fuel market

### Implement plant improvements

Focus on projects with meaningful near-term returns

### Strengthen balance sheet

Reduce cost of capital and optimize liquidity position

### Lower carbon score

Implement technologies and practices to lower carbon intensity and generate high value production