

PROSPECTUS SUPPLEMENT
 (to Prospectus dated July 1, 2020)



PACIFIC ETHANOL, INC.

5,075,000 shares of Common Stock
Pre-funded Warrants to Purchase Up to 3,825,493 Shares of Common Stock
3,825,493 Shares of Common Stock Underlying the Pre-funded Warrants

We are offering 5,075,000 shares of our common stock, \$0.001 par value per share, to certain institutional investors at an offering price of \$8.42 per share pursuant to this prospectus supplement and the accompanying prospectus. We are also offering pre-funded warrants to purchase up to 3,825,493 shares of our common stock, in lieu of shares of common stock, to each purchaser whose purchase of shares of our common stock in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 9.99% of our outstanding shares of common stock immediately following the consummation of this offering. The pre-funded warrants are being offered at an offering price of \$8.4199 per pre-funded warrant, will have an exercise price of \$0.0001 per share of common stock and will be immediately exercisable and may be exercised at any time until exercised in full. This offering also relates to the shares of common stock issuable upon exercise of any pre-funded warrant sold in this offering.

In a concurrent private placement, we are also selling to certain institutional investors Series A Warrants, or the Series A Warrants, to purchase up to 8,900,493 shares of our common stock, which represent 100% of the number of shares of our common stock and shares of common stock issuable upon exercise of the pre-funded warrants being purchased in this offering. Each Series A Warrant will be exercisable for one share of our common stock at an exercise price of \$9.757 per share, will be exercisable beginning six months after the date of issuance and will expire on the 18-month anniversary of the private placement. The Series A Warrants and the shares of our common stock issuable upon exercise of the Series A Warrants, or the Series A Warrant Shares, are being offered pursuant to the exemptions provided in Section 4(a)(2) under the Securities Act of 1933, as amended, or the Securities Act, and Rule 506(b) promulgated thereunder, and are not being offered pursuant to this prospectus supplement and the accompanying prospectus.

Our common stock is listed on The Nasdaq Capital Market under the symbol "PEIX." On October 23, 2020, the last reported sales price of our common stock on The Nasdaq Capital Market was \$8.87 per share. There is no established trading market for the pre-funded warrants or Series A Warrants, and we do not expect a market to develop. In addition, we do not intend to apply for the listing of the pre-funded warrants or Series A Warrants on any national securities exchange or other trading market. Without an active trading market, the liquidity of the pre-funded warrants and Series A Warrants will be limited.

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page S-9 of this prospectus supplement, the risk factors beginning on page 5 of the accompanying prospectus and the risk factors contained in the documents incorporated by reference in this prospectus supplement and the accompanying prospectus. You should carefully consider the risk factors described in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference in this prospectus supplement and the accompanying prospectus before you decide to purchase our common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

	Per Share	Per Pre-Funded Warrant	Total ⁽¹⁾
Public offering price	\$ 8.42	\$ 8.4199	\$ 74,941,768.51
Underwriting discounts and commissions ⁽²⁾	\$ 0.4775	\$ 0.4775	\$ 4,250,000
Proceeds, before payment of other expenses, to us	\$ 7.9425	\$ 7.9424	\$ 70,691,768.51

(1) Assumes no exercise of the pre-funded warrants or Series A Warrants being issued in the concurrent private placement.

(2) See "Underwriting" beginning on page S-27 of this prospectus supplement for additional information regarding total underwriting compensation.

Delivery of the shares of common stock will be made through the facilities of the Depository Trust Company. The underwriters expect to deliver the shares of common stock and pre-funded warrants against payment on or about October 28, 2020, subject to customary closing conditions.

Sole Book-Running Manager

Guggenheim Securities

Co-Managers

Craig-Hallum Capital Group

H.C. Wainwright & Co.

The date of this prospectus supplement is October 26, 2020.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement relates to the offering of our common stock and pre-funded warrants. Before buying any of the common stock or pre-funded warrants that we are offering, you should carefully read the accompanying base prospectus, this prospectus supplement, any supplement to this prospectus supplement, the information and documents incorporated herein by reference and the additional information under the heading “Where You Can Find Additional Information” and “Incorporation of Certain Information by Reference.” These documents contain important information that you should consider when making your investment decision.

We provide information to you about this offering of our common stock and pre-funded warrants in two separate documents that are bound together: (i) this prospectus supplement, which describes the specific details regarding this offering; and (ii) the accompanying base prospectus, which provides general information, some of which may not apply to this offering. Generally, when we refer to this “prospectus,” we are referring to both documents combined. If information in this prospectus supplement is inconsistent with the accompanying base prospectus, you should rely on this prospectus supplement. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in any document incorporated by reference in this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference into this prospectus supplement—the statement in the document having the later date modifies or supersedes the earlier statement.

You should rely only on this prospectus supplement and the information incorporated or deemed to be incorporated by reference in this prospectus supplement or in any free writing prospectuses we provide you. We have not, and the underwriters have not, authorized anyone to provide you with information that is in addition to, or different from, that contained or incorporated by reference in this prospectus supplement. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriters are not, offering to sell securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained or incorporated by reference in this prospectus supplement is accurate as of any date other than as of the date of this prospectus supplement or in the case of the documents incorporated by reference, the date of such documents regardless of the time of delivery of this prospectus supplement or any sale of our common shares or pre-funded warrants. Our business, financial condition, liquidity, results of operations, and prospects may have changed since those dates.

When used in this prospectus supplement, the terms “Pacific Ethanol,” “we,” “our” and “us” refer to Pacific Ethanol, Inc. and its consolidated subsidiaries, unless otherwise specified.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the documents incorporated by reference into this prospectus supplement contain “forward-looking statements” and are intended to be covered by the safe harbor provided for under Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. These statements include, among others:

- forecasts of our anticipated future results of operations, cash flows or financial position;
- statements concerning the anticipated impact of our transactions, investments, product development and other initiatives, including synergies or costs associated with our transformational initiatives, acquisitions or dispositions;
- statements about our liquidity, profit margins, tax position, tax assets, tax rates, asset values, contingent liabilities, growth opportunities, growth rates, acquisition and divestiture opportunities, business prospects, regulatory and competitive outlook, market share, product capabilities, investment and expenditure plans, business strategies, capital allocation plans and financing alternatives; and
- other similar statements of our expectations, beliefs, future plans and strategies, anticipated developments and other matters that are not historical facts, many of which are highlighted by words such as “may,” “will,” “would,” “could,” “should,” “plan,” “believes,” “expects,” “anticipates,” “estimates,” “projects,” “intends,” “likely,” “seeks,” “hopes,” or variations or similar expressions with respect to the future.

These forward-looking statements are based upon our judgment and assumptions as of the date such statements are made concerning future developments and events, many of which are beyond our control. These forward-looking statements, and the assumptions upon which they are based, (i) are not guarantees of future results, (ii) are inherently speculative and (iii) are subject to a number of risks and uncertainties. Actual events and results may differ materially from those anticipated, estimated, projected or implied by us in those statements if one or more of these risks or uncertainties materialize, or if our underlying assumptions prove incorrect. All of our forward-looking statements are qualified in their entirety by reference to our discussion of factors that could cause our actual results to differ materially from those anticipated, estimated, projected or implied by us in those forward-looking statements. Factors that could affect actual results include but are not limited to:

- our ability to effectively transition from a predominantly fuel-grade ethanol company to a company focused on the production and sale of specialty alcohols and essential ingredients;
- the effect of the coronavirus pandemic on our overall business operations;
- the effects of competition from a wide variety of competitive providers, including decreased demand for our specialty alcohols and essential ingredients and increased pricing pressures;
- fluctuations in the market prices of our products;
- fluctuations in the costs of key production input commodities such as corn and natural gas;
- the projected growth or contraction in the markets in which we operate;
- our strategies for expanding, maintaining or contracting our presence in these markets;

- anticipated trends in our financial condition and results of operations;
- the effects of ongoing changes in the regulation of the specialty alcohols and essential ingredients industries;
- our ability to effectively adjust to changes in the within the industries we compete, and changes in the composition of our markets and product mix;
- possible changes in the demand for our products, including our ability to effectively respond to either an increase or decrease in demand for specialty alcohols and essential ingredients;
- our ability to successfully maintain the quality and profitability of our existing specialty alcohol product and essential ingredients product offerings;
- our ability to generate cash flows sufficient to fund our financial commitments and objectives, including our capital expenditures, operating costs and debt repayments;
- our ability to implement our operating plans and corporate strategies;
- changes in our operating plans, corporate strategies or other capital allocation plans, whether based upon changes in our cash flows, cash requirements, financial performance, financial position, market conditions or otherwise;
- our ability to meet the terms and conditions of our debt obligations;
- our ability to use our net operating loss carryforwards in the amounts projected;
- any adverse developments in legal or regulatory proceedings involving us;
- the effects of changes in accounting policies, practices or assumptions, including changes that could potentially require additional future impairment charges;
- the effects of adverse weather, terrorism or other natural or man-made disasters;
- adverse effects of material weaknesses or any other significant deficiencies identified in our internal controls over financial reporting; and
- other risks referenced in this prospectus supplement.

Additional factors or risks that we currently deem immaterial, that are not presently known to us or that arise in the future could also cause our actual results to differ materially from expected results. Given these uncertainties, investors are cautioned not to unduly rely upon our forward-looking statements, which speak only as of the date made. We undertake no obligation to publicly update or revise any forward-looking statements for any reason, whether as a result of new information, future events or developments, changed circumstances, or otherwise. Furthermore, any information about our intentions contained in any of our forward-looking statements reflects our intentions as of the date of such forward-looking statement, and is based upon, among other things, existing regulatory, technological, industry, competitive, economic and market conditions, and our assumptions as of such date. We may change our intentions, strategies or plans at any time and without notice, based upon any changes in such factors, in our assumptions or otherwise.

PROSPECTUS SUPPLEMENT SUMMARY

The information below is a summary of the more detailed information included elsewhere in or incorporated by reference into this prospectus supplement. Because this is only a summary, however, it does not contain all of the information that may be important to you. You should carefully read this prospectus supplement and the accompanying base prospectus, including the documents incorporated by reference, which are described under "Where You Can Find Additional Information" and "Incorporation of Certain Information by Reference" in this prospectus supplement. You should also carefully consider the matters discussed in the section in this prospectus supplement entitled "Risk Factors."

Overview

We are a leading United States producer and marketer of specialty alcohols and essential ingredients.

We operate seven strategically located production distilleries. Three of our distilleries are located in the Midwestern state of Illinois and four of our distilleries are located in the Western states of California, Oregon and Idaho. Our distilleries have a combined specialty alcohols production capacity of 450 million gallons per year. We market all of the specialty alcohols produced at our distilleries as well as fuel-grade ethanol produced by third parties. In 2019, we marketed nearly 1.0 billion gallons combined of specialty alcohols, including fuel-grade ethanol, and nearly 3.0 million tons of essential ingredients on a dry matter basis. Our business consists of two operating segments: a production segment and a marketing segment.

Our mission is to be a leading United States producer and marketer of specialty alcohols and essential ingredients. We intend to accomplish this goal in part by investing in our specialized and higher value production and distribution infrastructure, expanding production in high demand essential ingredients, expanding and extending the sale of our products into new regional and international markets, building efficiencies and economies of scale and by capturing a greater portion of the value stream.

Production Segment

We produce specialty alcohols and essential ingredients, focusing on four key markets: *Health, Home & Beauty; Food & Beverage; Essential Ingredients; and Renewable Fuels*. Products for the Health, Home & Beauty market include specialty alcohols used in mouthwash, cosmetics, pharmaceuticals, hand sanitizer, disinfectants and cleaners. Products for the Food & Beverage markets include grain neutral spirits used in alcoholic beverages and vinegar as well as corn germ used for corn oils. Products for Essential Ingredients markets include yeast, corn gluten and distillers grains used in commercial animal feed and pet foods. Renewable Fuels includes fuel-grade ethanol and distillers corn oil used as a feedstock for renewable diesel fuel.

We produce these products at our distilleries described below. Our distilleries located in the Midwest are in the heart of the Corn Belt, benefit from low-cost and abundant feedstock and enjoy logistical advantages that enable us to provide our products to both domestic and international markets via truck, rail or barge. Our distilleries located on the West Coast are near their respective fuel and feed customers, offering significant delivery, transportation cost and logistical advantages.

We are currently operating only approximately 51% of our total production capacity. As market conditions change, we may increase, decrease or idle production at one or more operating distilleries or resume operations at any idled distillery.

Distillery Name	Location	Annual Production Capacity (est. gallons)	Operating Status*
Magic Valley	Burley, ID	60,000,000	Idled
Columbia	Boardman, OR	40,000,000	Operating
Stockton	Stockton, CA	60,000,000	Idled
Madera	Madera, CA	40,000,000	Idled
Pekin Wet	Pekin, IL	100,000,000	Operating
Pekin Dry	Pekin, IL	60,000,000	Idled**
Pekin ICP	Pekin, IL	90,000,000	Operating

* As of October 25, 2020

** We anticipate restarting our Pekin dry mill, which was idled due to lock repairs on the Illinois river that restricted our ability to ship our products by barge, during the fourth quarter of 2020.

Marketing Segment

We market all of the specialty alcohols and essential ingredients produced at our distilleries. We also market fuel-grade ethanol produced by third parties.

We have extensive and longstanding relationships, both domestic and international, with customers for our specialty alcohols products and essential ingredients. These customers include producers and distributors of ingredients for cosmetics, sanitizers and related products, distilled spirits producers, food products manufacturers, producers of personal health/consumer health and personal care hygiene products, and global trading firms.

Our fuel-grade ethanol customers are located throughout the Western and Midwestern United States and consist of integrated oil companies and gasoline marketers who blend fuel-grade ethanol into gasoline. Our fuel-grade ethanol customers collectively require fuel-grade ethanol volumes in excess of what we produce at our production distilleries. We secure additional fuel-grade ethanol supplies from third-party fuel-grade ethanol plants in California and other third-party suppliers in the Midwest where a majority of fuel-grade ethanol producers are located. We arrange for transportation, storage and delivery of fuel-grade ethanol purchased by our customers through our agreements with third-party service providers in the Western United States as well as in the Midwest from a variety of sources.

We market our essential ingredient feed products to dairies and feedlots, in many cases located near our distilleries. These customers use our feed products for livestock as a substitute for corn and other sources of starch and protein. We sell our corn oil to poultry and biodiesel customers. We do not market essential ingredients from other producers.

Recent Developments

We recently implemented a strategic realignment of our business. Historically, we were heavily focused on producing fuel-grade ethanol for the transportation fuels market. Although we intend to continue producing renewable fuels for the foreseeable future, we have redirected our business focus to producing and marketing other specialty alcohols and a range of essential ingredients for consumer products.

Beginning with our acquisition of Illinois Corn Processing in 2017 and continuing with our ongoing expansion of specialty alcohol production, we have invested heavily in developing the capability to produce specialty alcohols and essential ingredients for consumer products, including alcoholic beverages, personal care products, cleaners and pharmaceuticals. Over the past nine months, we have increased production of specialty alcohols used in consumer products and reduced production of fuel-grade ethanol, shifting from approximately 85% fuel-grade ethanol and 15% other specialty alcohols for the three months ended December 31, 2019 to approximately 50% each for the three months ended September 30, 2020.

Excluding sales of fuel-grade ethanol produced by third parties included in our marketing segment, specialty alcohols used in consumer products contributed approximately 45% of our net sales during the first nine months of 2020, compared with only 15% for all of 2019. Specialty alcohols used in consumer products sell at a premium to fuel-grade ethanol and require specialized systems, processes and certifications to produce them that are not required for fuel-grade ethanol.

Following our strategic realignment, we now focus on specialty alcohols and essential ingredients for four key markets: *Health, Home & Beauty; Food & Beverage; Essential Ingredients; and Renewable Fuels*. Products for the Health, Home & Beauty market include specialty alcohols used in mouthwash, cosmetics, pharmaceuticals, hand sanitizer, disinfectants and cleaners. Products for the Food & Beverage markets include grain neutral spirits used in alcoholic beverages and vinegar as well as corn germ used for corn oils. Products for Essential Ingredients markets include yeast, corn gluten and distillers grains used in commercial animal feed and pet foods. Renewable Fuels includes fuel-grade ethanol and distillers corn oil used as a feedstock for renewable diesel fuel.

We recently obtained our ISO 9001 certification for our Illinois Corn Processing distillery, and we are pursuing additional certifications and qualifications to enable us to address new product applications and serve new customers. We believe focusing on products for these markets aligns us with strong secular growth trends that will allow us to deliver greater and more consistent profitability for our shareholders.

We idled our Magic Valley, Stockton and Madera distilleries earlier this year and we continue to operate our Columbia distillery. As part of our strategic realignment and new business focus, we intend to sell or repurpose our Western assets.

In connection with the strategic realignment to focus on specialty alcohols and essential ingredients, we will change our corporate name and introduce a new brand identity. Our new name will reflect our focus on providing specialty alcohols and essential ingredients used in consumer products.

We have released the following preliminary third quarter 2020 results reflecting our improved performance resulting from our strategic realignment and new business focus. For the three months ended September 30, 2020, we generated net sales of approximately \$204 million, and we anticipate reporting approximately \$15 million in net income and approximately \$34 million in Adjusted EBITDA. This reflects a decrease in net sales of approximately \$161 million, and an increase in net income of approximately \$43 million and an increase in Adjusted EBITDA of approximately \$46 million from the same period last year. Total debt as of September 30, 2020 was approximately \$164 million, a decrease of \$29 million, or 15%, from total debt as of June 30, 2020. Cash as of September 30, 2020 was approximately \$39 million, an increase of \$9 million or 30% from cash as of June 30, 2020. We have reduced our net debt by approximately \$100 million from December 31, 2019 to September 30, 2020. We plan to announce our third quarter results on November 9, 2020. As previously announced, we are continuing to evaluate alternatives to refinance our existing indebtedness in order to reduce interest expense, extend debt maturities and further strengthen our balance sheet.

Use of Non-GAAP Measures

We believe that certain financial measures not in accordance with generally accepted accounting principles, or GAAP, are useful measures of operations. We define Adjusted EBITDA as unaudited net income (loss) attributed to Pacific Ethanol before interest expense, provision (benefit) for income taxes, asset impairments, loss on extinguishment of debt, purchase accounting adjustments, fair value adjustments, and depreciation and amortization expense. We provide this non-GAAP measure so that investors will have the same financial information that management uses, which may assist investors in properly assessing our performance on a period-over-period basis. Adjusted EBITDA is not a measure of financial performance under GAAP and should not be considered as an alternative to net income (loss) or any other measure of performance under GAAP, or to cash flows from operating, investing or financing activities as an indicator of cash flows or as a measure of liquidity. Adjusted EBITDA has limitations as an analytical tool and you should not consider this measure in isolation or as a substitute for analysis of our results of operations as reported under GAAP.

Preliminary Reconciliation of Adjusted EBITDA to Net Income (Loss)

<i>(in thousands) (unaudited)</i>	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Net income (loss) attributed to Pacific Ethanol	\$ 15,215	\$ (27,326)	\$ 5,079	\$ (47,862)
Adjustments:				
Interest expense*	4,003	5,163	13,785	15,014
Fair value adjustments	6,856	—	7,497	—
Benefit for income taxes	—	—	—	—
Depreciation and amortization expense*	8,049	9,751	24,254	29,232
Total adjustments	18,908	14,914	45,536	44,246
Adjusted EBITDA	\$ 34,123	\$ (12,412)	\$ 50,615	\$ (3,616)

* Adjusted for noncontrolling interests.

Concurrent Private Placement

In a concurrent private placement, we are also selling to certain institutional investors Series A Warrants to purchase up to 8,900,493 shares of our common stock, which represent 100% of the number of shares of our common stock and shares of common stock issuable upon exercise of the pre-funded warrants being purchased in this offering. Each Series A Warrant will be exercisable for one share of our common stock at an exercise price of \$9.757 per share, will be exercisable beginning six months after the date of issuance and will expire on the 18-month anniversary of the private placement. The Series A Warrants and the Series A Warrant Shares are being offered pursuant to the exemptions provided in Section 4(a)(2) under the Securities Act and Rule 506(b) promulgated thereunder, and are not being offered pursuant to this prospectus supplement and the accompanying prospectus. In addition, we do not intend to list the Series A Warrants on The Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.

Corporate Information

We are a Delaware corporation formed in February 2005. Our principal executive offices are located at 400 Capitol Mall, Suite 2060, Sacramento, California 95814. Our telephone number is (916) 403-2123 and our Internet website is www.pacificethanol.com. The content of our Internet website does not constitute a part of this prospectus supplement.

Additional information about us and our subsidiaries can be obtained from the documents incorporated by reference herein. See “Where You Can Find Additional Information.”

THE OFFERING

Common stock offered by us	5,075,000 shares.
Pre-funded warrants offered by us	We are also offering pre-funded warrants to purchase up to 3,825,493 shares of our common stock, in lieu of shares of common stock, to each purchaser whose purchase of shares of our common stock in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 9.99% of our outstanding shares of common stock immediately following the consummation of this offering. The pre-funded warrants are being offered at an offering price of \$8.4199 per pre-funded warrant, will have an exercise price of \$0.0001 per share of common stock and will be immediately exercisable and may be exercised at any time until exercised in full. This offering also relates to the shares of common stock issuable upon exercise of any pre-funded warrant sold in this offering.
Common stock outstanding immediately prior to this offering	63,419,982 shares.
Common stock to be outstanding immediately after this offering	68,494,982 shares (excluding shares issuable upon the exercise of the pre-funded warrants and the Series A Warrants to be issued in the concurrent private placement).
Use of proceeds	We expect to receive net proceeds from the sale of shares of our common stock in this offering of approximately \$70 million, excluding any exercise of the pre-funded warrants issued in connection with this offering and the exercise of any Series A Warrants in the concurrent private placement, after deducting fees and our estimated offering expenses. We intend to use a portion of these net proceeds to repay a portion of certain existing indebtedness and the remaining proceeds for working capital needs, capital expenditures, acquisitions and other general corporate purposes. See "Use of Proceeds."
Risk factors	Investing in our common stock involves substantial risks. See "Risk Factors" beginning on page S-9 of this prospectus supplement and page 5 of the accompanying prospectus for a discussion of factors that you should read and consider before investing in our common stock.
Concurrent private placement	In a concurrent private placement, we are also selling to certain institutional investors Series A Warrants to purchase up to 8,900,493 shares of our common stock, which represent 100% of the number of shares of our common stock and shares of common stock issuable upon exercise of the pre-funded warrants being purchased in this offering. Each Series A Warrant will be exercisable for one share of our common stock at an exercise price of \$9.757 per share, will be exercisable beginning six months after the date of issuance and will expire on the 18-month anniversary of the private placement. The Series A Warrants and the Series A Warrant Shares are being offered pursuant to the exemptions provided in Section 4(a)(2) under the Securities Act and Rule 506(b) promulgated thereunder, and are not being offered pursuant to this prospectus supplement and the accompanying prospectus. In addition, we do not intend to list the Series A Warrants on The Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.
The Nasdaq Capital Market symbol	"PEIX." There is no established trading market for the pre-funded warrants or Series A Warrants, and we do not expect a market to develop. In addition, we do not intend to apply for the listing of the pre-funded warrants or Series A Warrants on any national securities exchange or other trading market. Without an active trading market, the liquidity of the pre-funded warrants and Series A Warrants will be limited.

The number of shares of common stock shown above to be outstanding after this offering is based on the 63,482,832 shares outstanding as of September 30, 2020, and excludes the following as of September 30, 2020:

- 700,032 shares of common stock reserved for issuance under our 2016 Stock Incentive Plan, or the 2016 Plan;
- 228,585 shares of common stock reserved for issuance upon exercise of options issued under our 2006 Stock Option Plan, or the 2006 Plan, at a weighted average exercise price of \$4.12 per share;
- 3,825,493 shares of common stock issuable upon exercise of the pre-funded warrants to be issued to investors in this offering with an exercise price of \$0.0001 per share;
- 8,900,493 shares of common stock issuable upon exercise of the Series A Warrants to be issued to the investors in the private placement concurrent with this offering at an exercise price of \$9.757 per share;
- 964,230 shares of common stock reserved for issuance upon conversion of our Series B Cumulative Convertible Preferred Stock, or Series B Preferred Stock, which amount includes an additional 119,908 shares of common stock that are issuable upon conversion of our Series B Preferred Stock as a result of the sale of shares of common stock in this offering, including shares of common stock underlying the pre-funded warrants, at the offering price per share on the cover page of this prospectus, and shares of common stock underlying the Series A Warrants at the exercise price thereof; and
- any additional shares of common stock we may issue from time to time after that date.

RISK FACTORS

Investing in our shares of common stock involves a high degree of risk. You should carefully consider the risks, uncertainties and other factors described in our most recent Annual Report on Form 10-K, as supplemented and updated by subsequent quarterly reports on Form 10-Q and current reports on Form 8-K that we have filed or will file with the Securities and Exchange Commission, and in other documents incorporated by reference to our filings with the Securities and Exchange Commission pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act and all other information contained or incorporated by reference in this prospectus supplement and the accompanying base prospectus, including our consolidated financial statements and the related notes, before investing in our common stock. If any of these risks materialize, our business, financial condition or results of operations could be materially harmed. In that case, the trading price of our common stock could decline, and you may lose some or all of your investment. The risks and uncertainties we describe are not the only ones facing us. Additional risks not presently known to us, or that we currently deem immaterial, may also impair our business operations. If any of these risks were to occur, our business, financial condition, or results of operations would likely suffer. In that event, the trading price of our common stock could decline, and you could lose all or part of your investment.

Risks Related to Our Business

The effects of the coronavirus pandemic, or its abatement, may materially and adversely affect our business, results of operations and liquidity.

The coronavirus pandemic has resulted in businesses suspending or substantially curtailing global operations and travel, quarantines, and an overall substantial slowdown of economic activity. Federal, state and foreign governments have implemented measures to contain the virus, including social distancing requirements, travel restrictions, border closures, limitations on public gatherings, work-from-home orders, and closure of non-essential businesses. Transportation fuels in particular, including fuel-grade ethanol, have experienced significant price declines and reduced demand. A further or extended ongoing downturn in global economic activity, or recessionary conditions in major geographic regions, will lead to poor demand for, and negatively affect the prices of, fuel-grade ethanol, materially and adversely affecting our business, results of operations and liquidity.

Furthermore, to protect the health and well-being of our employees and customers, we have implemented work-from-home requirements, made substantial modifications to employee travel policies, and cancelled or shifted marketing and other corporate events to virtual-only formats for the foreseeable future. While we continue to monitor our circumstances and may adjust our current policies as more information and public health guidance become available, these precautionary measures could negatively affect our sales and marketing efforts, delay and lengthen our sales cycles, or create operational or other challenges, any of which could harm our business and results of operations.

In addition, if one or more of our employees or customers becomes ill from coronavirus and attributes their infection to us, including through exposure at one of our offices or facilities, we could be subject to allegations of failure to adequately mitigate the risk of exposure. Such allegations could harm our reputation and expose us to the risks of litigation and liability.

Our specialty alcohols business, not including fuel-grade ethanol, has benefitted significantly from the coronavirus pandemic due to a substantial increase in demand for alcohol-based sanitizers and disinfectants. As the coronavirus pandemic abates, demand for alcohol-based sanitizers and disinfectants may decline, ultimately exerting downward pressure on prices for our specialty alcohols used in those products. In addition, higher industry production levels in response to the coronavirus pandemic and any resulting oversupply of specialty alcohols for sanitizers and disinfectants will also exert downward pressure on prices. Reduced demand and prices for our specialty alcohols used in sanitizers and disinfectants, or industry oversupply of those specialty alcohols, may materially and adversely affect our business, results of operations and liquidity.

Our plant indebtedness exposes us to many risks that could negatively impact our business, our business prospects, our liquidity and our cash flows and results of operations.

Our plants located in the Midwest have significant indebtedness. In addition, we have significant indebtedness under our senior secured notes issued at the parent-company level. The terms of our loans require amortizing payments of principal over the lives of the loans and our borrowing availability under our plant revolving credit facilities periodically and automatically declines through the maturity dates of those facilities. Our indebtedness could:

- make it more difficult to pay or refinance our debts as they become due during adverse economic and industry conditions because any decrease in revenues could cause us to not have sufficient cash flows from operations to make our scheduled debt payments;
- limit our flexibility to pursue strategic opportunities or react to changes in our business and the industry in which we operate and, consequently, place us at a competitive disadvantage to our competitors who have less debt;
- require a substantial portion of our cash flows from operations to be used for debt service payments, thereby reducing the availability of our cash flows to fund working capital, capital expenditures, acquisitions, dividend payments and other general corporate purposes; and/or
- limit our ability to procure additional financing for working capital or other purposes.

Our term loans and credit facilities also require compliance with numerous financial and other covenants.

We are not in compliance with our obligation to obtain lender approval of a comprehensive plan to restructure our assets and liabilities, which could result in their acceleration of our debt. We do not have sufficient liquidity or capital resources to immediately repay our debt if accelerated.

In addition, our plant indebtedness bears interest at variable rates. An increase in prevailing interest rates would likewise increase our debt service obligations and could materially and adversely affect our cash flows and results of operations.

Our ability to generate sufficient cash to make all principal and interest payments when due depends on our business performance, which is subject to a variety of factors beyond our control, including the supply of and demand for ethanol and co-products, ethanol and co-product prices, the cost of key production inputs, and many other factors incident to the ethanol production and marketing industry. We cannot provide any assurance that we will be able to timely satisfy such obligations. Our failure to timely satisfy our debt obligations could have a material adverse effect on our business, business prospects, liquidity, cash flows and results of operations, and could force us to seek protection under the U.S. Bankruptcy Code.

We have incurred significant losses and negative operating cash flow in the past and we may incur losses and negative operating cash flow in the future, which may hamper our operations and impede us from expanding our business.

We have incurred significant losses and negative operating cash flow in the past. For the six months ended June 30, 2020 and 2019, we incurred consolidated net losses of \$12.3 million and \$22.5 million, respectively. For the years ended December 31, 2019 and 2018, we incurred consolidated net losses of approximately \$101.3 million and \$68.0 million, respectively. For the year ended December 31, 2019, we incurred negative operating cash flow of approximately \$23.4 million. We may incur losses and negative operating cash flow in the future. We expect to rely on cash on hand, cash, if any, generated from our operations, borrowing availability under our lines of credit and proceeds from our future financing activities, if any, to fund all of the cash requirements of our business. Additional losses and negative operating cash flow may hamper our operations and impede us from expanding our business.

Our results of operations and our ability to operate at a profit are largely dependent on our ability to manage the costs of corn, natural gas and other production inputs, with the prices of our specialty alcohols and essential ingredients, all of which are subject to volatility and uncertainty.

Our results of operations are highly impacted by commodity prices, including the cost of corn, natural gas and other production inputs that we must purchase, and the prices of specialty alcohols and essential ingredients that we sell. Prices and supplies are subject to and determined by market and other forces over which we have no control, such as weather, domestic and global demand, supply shortages, export prices and various governmental policies in the United States and throughout the world.

Price volatility of corn, natural gas and other production inputs, and specialty alcohols and essential ingredients, may cause our results of operations to fluctuate substantially. We may fail to generate expected levels of net sales and profits even under fixed-price and other contracts for the sale of specialty alcohols used in consumer products. Our customers may not pay us timely or at all, even under longer-term, fixed-price contracts for our specialty alcohols, and may seek to renegotiate prices under those contracts during periods of falling prices or high price volatility.

In addition, over the past several years, for example, the spread between corn and fuel-grade ethanol prices has fluctuated significantly. Fluctuations are likely to continue to occur. A sustained narrow spread, whether as a result of sustained high or increased corn prices or sustained low or decreased fuel-grade ethanol or other specialty alcohol or essential ingredient prices, would adversely affect our results of operations and financial position. Revenues from sales of specialty alcohols, particularly fuel-grade ethanol, and essential ingredients could decline below the marginal cost of production, which may force us to suspend production, particularly fuel-grade ethanol production, at some or all of our distilleries.

In addition, some of our fuel-grade ethanol marketing activities will likely be unprofitable in a market of generally declining prices due to the nature of our business. For example, to satisfy customer demands, we maintain certain quantities of fuel-grade ethanol inventory for subsequent resale. Moreover, we procure much of our fuel-grade ethanol inventory outside the context of a marketing arrangement and therefore must buy fuel-grade ethanol at a price established at the time of purchase and sell fuel-grade ethanol at an index price established later at the time of sale that is generally reflective of movements in the market price of fuel-grade ethanol. As a result, our margins for fuel-grade ethanol sold in these transactions generally decline and may turn negative as the market price of fuel-grade ethanol declines.

We can provide no assurance that corn, natural gas or other production inputs can be purchased at or near current or any particular prices, or that our specialty alcohols or essential ingredients will sell at, or near current or any particular prices. Consequently, our results of operations and financial position may be adversely affected by increases in the prices of corn, natural gas and other production inputs or decreases in the prices of our specialty alcohols and essential ingredients.

Increased specialty alcohol or essential ingredient production or higher inventory levels may cause a decline in prices for those products, and may have other negative effects, adversely impacting our results of operations, cash flows and financial condition.

The prices of our specialty alcohols, in particular fuel-grade ethanol, and essential ingredients are impacted by competing third-party supplies of those products. For example, we believe that the most significant factor influencing the price of fuel-grade ethanol has been the substantial increase in production. According to the Renewable Fuels Association, domestic fuel-grade ethanol production capacity increased from an annualized rate of 1.5 billion gallons per year in January 1999 to a record 16.1 billion gallons in 2018. In addition, if fuel-grade ethanol production margins improve, we anticipate that owners of fuel-grade ethanol production distilleries operating at below capacity, or owners of idled fuel-grade ethanol distilleries, will increase production levels, thereby resulting in more abundant fuel-grade ethanol supplies and inventories. Increases in the supply of fuel-grade ethanol may not be commensurate with increases in demand for fuel-grade ethanol, thus leading to lower fuel-grade ethanol prices. Also, higher industry production levels in response to the coronavirus pandemic and any resulting oversupply of specialty alcohols for sanitizers and disinfectants will also exert downward pressure on prices. Any of these outcomes could have a material adverse effect on our results of operations, cash flows and financial condition.

The prices of our products are volatile and subject to large fluctuations, which may cause our results of operations to fluctuate significantly.

The prices of our products are volatile and subject to large fluctuations. For example, the market price of fuel-grade ethanol is dependent upon many factors, including the supply of fuel-grade ethanol and the price of gasoline, which is in turn dependent upon the price of petroleum which is highly volatile and difficult to forecast. For instance, fuel-grade ethanol prices, as reported by the Chicago Board of Trade, ranged from \$0.81 to \$1.61 per gallon for the nine months ended September 30, 2020, from \$1.25 to \$1.70 per gallon in 2019 and from \$1.20 to \$1.53 per gallon in 2018. In addition, even under longer-term, fixed-price contracts for our specialty alcohols, our customers may seek to renegotiate prices under those contracts during periods of falling prices or high price volatility. Fluctuations in the prices of our products may cause our results of operations to fluctuate significantly.

Disruptions in our production or distribution may adversely affect our business, results of operations and financial condition.

Our business depends on the continuing availability of rail, road, port, storage and distribution infrastructure. In particular, due to limited storage capacity at our distilleries and other considerations related to production efficiencies, our distilleries depend on just-in-time delivery of corn. The production of specialty alcohols also requires a significant and uninterrupted supply of other raw materials and energy, primarily water, electricity and natural gas. Local water, electricity and gas utilities may not be able to reliably supply the water, electricity and natural gas that our distilleries need or may not be able to supply those resources on acceptable terms. In the past, poor weather has caused disruptions in rail transportation, which slowed the delivery of fuel-grade ethanol by rail, the principle manner by which fuel-grade ethanol from our distilleries located in the Midwest is transported to market.

Disruptions in production or distribution, whether caused by labor difficulties, unscheduled downtimes and other operational hazards inherent in the specialty alcohol production industry, including equipment failures, fires, explosions, abnormal pressures, blowouts, pipeline ruptures, transportation accidents and natural disasters such as earthquakes, floods and storms, or human error or malfeasance or other reasons, could prevent timely deliveries of corn or other raw materials and energy, and could delay transport of our products to market, and may require us to halt production at one or more distilleries, any of which could have a material adverse effect on our business, results of operations and financial condition.

Some of these operational hazards may also cause personal injury or loss of life, severe damage to or destruction of property and equipment or environmental damage, and may result in suspension of operations and the imposition of civil or criminal penalties. Our insurance may not be adequate to fully cover the potential hazards described above or we may not be able to renew this insurance on commercially reasonable terms or at all.

Cyberattacks through security vulnerabilities could lead to disruption of business, reduced revenue, increased costs, liability claims, or harm to our reputation or competitive position.

Security vulnerabilities may arise from our hardware, software, employees, contractors or policies we have deployed, which may result in external parties gaining access to our networks, datacenters, cloud datacenters, corporate computers, manufacturing systems, and or access to accounts we have at our suppliers, vendors, and customers. They may gain access to our data or our users' or customers' data, or attack the networks causing denial of service or attempt to hold our data or systems in ransom. The vulnerability could be caused by inadequate account security practices such as failure to timely remove employee access when terminated. To mitigate these security issues, we have implemented measures throughout our organization, including firewalls, backups, encryption, employee information technology policies and user account policies. However, there can be no assurance these measures will be sufficient to avoid cyberattacks. If any of these types of security breaches were to occur and we were unable to protect sensitive data, our relationships with our business partners and customers could be materially damaged, our reputation could be materially harmed, and we could be exposed to a risk of litigation and possible significant liability.

Further, if we fail to adequately maintain our infrastructure, we may have outages and data loss. Excessive outages may affect our ability to timely and efficiently deliver products to customers or develop new products and solutions. Such disruptions and data loss may adversely impact our ability to fulfill orders and interrupt other processes. Delayed sales or lost customers resulting from these disruptions could adversely affect our financial results, stock price and reputation.

The State of California enacted the California Consumer Privacy Act of 2018, or CCPA, effective on January 1, 2020, commencing on January 1, 2020. Our and our collaborators' and contractors' failure to fully comply with CCPA and other laws could lead to significant fines and require onerous corrective action. In addition, data security breaches experienced by us, our collaborators or contractors could result in the loss of trade secrets or other intellectual property, public disclosure of sensitive commercial data, and the exposure of personally identifiable information (including sensitive personal information) of our employees, customers, collaborators and others.

Unauthorized use or disclosure of, or access to, any personal information maintained by us or on our behalf, whether through breach of our systems, breach of the systems of our suppliers or vendors by an unauthorized party, or through employee or contractor error, theft or misuse, or otherwise, could harm our business. If any such unauthorized use or disclosure of, or access to, such personal information was to occur, our operations could be seriously disrupted, and we could be subject to demands, claims and litigation by private parties, and investigations, related actions, and penalties by regulatory authorities. In addition, we could incur significant costs in notifying affected persons and entities and otherwise complying with the multitude of foreign, federal, state and local laws and regulations relating to the unauthorized access to, or use or disclosure of, personal information. Finally, any perceived or actual unauthorized access to, or use or disclosure of, such information could harm our reputation, substantially impair our ability to attract and retain customers and have an adverse impact on our business, financial condition and results of operations.

We may engage in hedging transactions and other risk mitigation strategies that could harm our results of operations and financial condition.

In an attempt to partially offset the effects of volatility of our product prices, in particular fuel-grade ethanol, and corn and natural gas costs, we may enter into contracts to fix the price of a portion of our production or purchase a portion of our corn or natural gas requirements on a forward basis. In addition, we may engage in other hedging transactions involving exchange-traded futures contracts for corn, natural gas and unleaded gasoline from time to time. The financial statement impact of these activities is dependent upon, among other things, the prices involved and our ability to sell sufficient products to use all of the corn and natural gas for which forward commitments have been made. Hedging arrangements also expose us to the risk of financial loss in situations where the other party to the hedging contract defaults on its contract or, in the case of exchange-traded contracts, where there is a change in the expected differential between the underlying price in the hedging agreement and the actual prices paid or received by us. In addition, our open contract positions may require cash deposits to cover margin calls, negatively impacting our liquidity. As a result, our hedging activities and fluctuations in the price of corn, natural gas, fuel-grade ethanol and unleaded gasoline may adversely affect our results of operations, financial condition and liquidity.

Future demand for fuel-grade ethanol is uncertain and may be affected by changes to federal mandates, public perception, consumer acceptance and overall consumer demand for transportation fuel, any of which could negatively affect demand for fuel-grade ethanol and our results of operations.

Although many trade groups, academics and governmental agencies have supported fuel-grade ethanol as a fuel additive that promotes a cleaner environment, others have criticized fuel-grade ethanol production as consuming considerably more energy and emitting more greenhouse gases than other biofuels and potentially depleting water resources. Some studies have suggested that corn-based ethanol is less efficient than ethanol produced from other feedstock and that it negatively impacts consumers by causing increased prices for dairy, meat and other food generated from livestock that consume corn. Additionally, critics of fuel-grade ethanol contend that corn supplies are redirected from international food markets to domestic fuel markets. If negative views of corn-based ethanol production gain acceptance, support for existing measures promoting use and domestic production of corn-based ethanol could decline, leading to reduction or repeal of federal mandates, which could adversely affect the demand for fuel-grade ethanol. These views could also negatively impact public perception of the fuel-grade ethanol industry and acceptance of fuel-grade ethanol as an alternative fuel.

There are limited markets for fuel-grade ethanol beyond those established by federal mandates. Discretionary blending and E85 blending are important secondary markets. Discretionary blending is often determined by the price of fuel-grade ethanol versus the price of gasoline. In periods when discretionary blending is financially unattractive, the demand for fuel-grade ethanol may be reduced. Also, the demand for fuel-grade ethanol is affected by the overall demand for transportation fuel. Demand for transportation fuel is affected by the number of miles traveled by consumers and the fuel economy of vehicles. A reduction in the demand for fuel-grade ethanol and co-products depress the value of our fuel-grade ethanol and related products, erode our overall margins and reduce our ability to generate revenue or to operate profitably. In addition, consumer acceptance of E15 and E85 fuels is needed before fuel-grade ethanol can achieve any significant growth in market share relative to other transportation fuels.

The United States fuel-grade ethanol industry is highly dependent upon certain federal and state legislation and regulation and any changes in legislation or regulation could have a material adverse effect on our results of operations, cash flows and financial condition.

The Environmental Protection Agency, or EPA, has implemented the Renewable Fuel Standard, or RFS, pursuant to the Energy Policy Act of 2005 and the Energy Independence and Security Act of 2007. The RFS program sets annual quotas for the quantity of renewable fuels (such as fuel-grade ethanol) that must be blended into motor fuels consumed in the United States. The domestic market for fuel-grade ethanol is significantly impacted by federal mandates under the RFS program for volumes of renewable fuels (such as fuel-grade ethanol) required to be blended with gasoline. Future demand for fuel-grade ethanol will be largely dependent upon incentives to blend fuel-grade ethanol into motor fuels, including the price of fuel-grade ethanol relative to the price of gasoline, the relative octane value of fuel-grade ethanol, constraints in the ability of vehicles to use higher fuel-grade ethanol blends, the RFS, and other applicable environmental requirements. Any significant increase in production capacity above the RFS minimum requirements may have an adverse impact on fuel-grade ethanol prices.

Legislation aimed at reducing or limiting the renewable fuel use required by the RFS has been introduced in the United States Congress. On January 3, 2019, a bill (H.R. 104) was introduced into the House of Representatives aiming to repeal certain amendments to the Clean Air Act relating to the expansion of the renewable fuel program, and for other purposes. This bill revises the renewable fuel program, including the RFS. Under current law, the RFS specifies the minimum volume of renewable fuel, such as fuel-grade ethanol, that must be contained in gasoline sold in the United States, except in noncontiguous states or territories. The RFS annually increases until 2022 when a minimum of 36 billion gallons of renewable fuel must be blended into gasoline. This bill decreases the volume of renewable fuel that must be contained in gasoline to 7.5 billion gallons each year. The bill also revises the RFS to eliminate separate volume requirements for the following renewable fuel categories: advanced biofuels, cellulosic biofuel, and biomass-based diesel. The bill was referred to a congressional subcommittee where it awaits further consideration. On May 7, 2019, the Food and Fuel Consumer Protection Act of 2019 (H.R. 2540), was introduced in the House of Representatives. The bill aims to prevent RFS blending obligations from requiring fuel-grade ethanol to make up more than 9.7 percent of the total volume of gasoline projected to be sold or introduced into commerce in the United States for a given calendar year. The bill was referred to a congressional committee, which will consider it before possibly sending the bill to the House of Representatives as a whole. On June 21, 2019, a bill (H.R. 3427) was introduced in the House of Representatives aiming to repeal the EPA's Renewable Fuel Standard program, which requires transportation fuel to contain a minimum volume of renewable fuel. The bill was referred to a congressional committee, which will consider it before possibly sending the bill to the House of Representatives as a whole. On July 25, 2019, a bill (S.2298) was introduced in the United States Senate, to amend the Clean Air Act to eliminate the corn ethanol mandate for renewable fuel. The bill was read twice and referred to the Committee on Environment and Public Works. Our results of operations, cash flows and financial condition could be adversely impacted if any legislation is enacted that reduces or limits the RFS volume requirements.

Under the provisions of the Clean Air Act, as amended by the Energy Independence and Security Act of 2007, the EPA has limited authority to waive or reduce the mandated RFS requirements, which authority is subject to consultation with the Secretaries of Agriculture and Energy, and based on a determination that there is inadequate domestic renewable fuel supply or implementation of the applicable requirements would severely harm the economy or environment of a state, region or the United States. Our results of operations, cash flows and financial condition could be adversely impacted if the EPA reduces the RFS requirements from the statutory levels specified in the RFS.

The industries in which we operate are extremely competitive. Many of our significant competitors have greater production and financial resources and any of them could use their greater resources to gain market share at our expense.

The industries in which we operate are extremely competitive. Many of our significant competitors have substantially greater production and financial resources than we do. As a result, our competitors may be able to compete more aggressively and sustain that competition over a longer period of time. Successful competition will require a continued high level of investment in production facility maintenance. Our limited resources relative to many significant competitors may cause us to fail to anticipate or respond adequately to new developments and other competitive pressures. This failure could reduce our competitiveness and cause a decline in market share, sales and profitability. Even if sufficient funds are available, we may not be able to make the modifications and improvements necessary to compete successfully.

We also face competition from international suppliers, many of whom have cost structures that are substantially lower than our cost structure. An increase in domestic or foreign competition could force us to reduce our prices and take other steps to compete effectively, which could adversely affect our business, financial condition and results of operations.

Our ability to utilize net operating loss carryforwards and certain other tax attributes may be limited.

Federal and state income tax laws impose restrictions on the utilization of net operating loss, or NOL, and tax credit carryforwards in the event that an “ownership change” occurs for tax purposes, as defined by Section 382 of the Internal Revenue Code, or Code. In general, an ownership change occurs when stockholders owning 5% or more of a “loss corporation” (a corporation entitled to use NOL or other loss carryovers) have increased their ownership of stock in such corporation by more than 50 percentage points during any three-year period. The annual base limitation under Section 382 of the Code is calculated by multiplying the loss corporation’s value at the time of the ownership change by the greater of the long-term tax-exempt rate determined by the Internal Revenue Service in the month of the ownership change or the two preceding months.

As of December 31, 2019, of our \$228.8 million of federal NOLs, we had \$82.1 million of federal NOLs that are limited in their annual use under Section 382 of the Code beyond 2019. Accordingly, our ability to utilize these NOL carryforwards may be substantially limited. These limitations could in turn result in increased future tax obligations, which could have a material adverse effect on our business, financial condition and results of operations.

We may be adversely affected by environmental, health and safety laws, regulations and liabilities

We are subject to various federal, state and local environmental laws and regulations, including those relating to the discharge of materials into the air, water and ground, the generation, storage, handling, use, transportation and disposal of hazardous materials and wastes, and the health and safety of our employees. In addition, some of these laws and regulations require us to operate under permits that are subject to renewal or modification. These laws, regulations and permits can often require expensive pollution control equipment or operational changes to limit actual or potential impacts to the environment. A violation of these laws and regulations or permit conditions can result in substantial fines, natural resource damages, criminal sanctions, permit revocations and/or distillery shutdowns. In addition, we have made, and expect to make, significant capital expenditures on an ongoing basis to comply with increasingly stringent environmental laws, regulations and permits.

We may be liable for the investigation and cleanup of environmental contamination at each of our distilleries and at off-site locations where we arrange for the disposal of hazardous substances or wastes. If these substances or wastes have been or are disposed of or released at sites that undergo investigation and/or remediation by regulatory agencies, we may be responsible under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, or other environmental laws for all or part of the costs of investigation and/or remediation, and for damages to natural resources. We may also be subject to related claims by private parties alleging property damage and personal injury due to exposure to hazardous or other materials at or from those properties. Some of these matters may require us to expend significant amounts for investigation, cleanup or other costs.

In addition, new laws, new interpretations of existing laws, increased governmental enforcement of environmental laws or other developments could require us to make significant additional expenditures. Continued government and public emphasis on environmental issues can be expected to result in increased future investments for environmental controls at our distilleries. Present and future environmental laws and regulations, and interpretations of those laws and regulations, applicable to our operations, more vigorous enforcement policies and discovery of currently unknown conditions may require substantial expenditures that could have a material adverse effect on our results of operations and financial condition.

The hazards and risks associated with producing and transporting our products (including fires, natural disasters, explosions and abnormal pressures and blowouts) may also result in personal injury claims or damage to property and third parties. As protection against operating hazards, we maintain insurance coverage against some, but not all, potential losses. However, we could sustain losses for uninsurable or uninsured risks, or in amounts in excess of existing insurance coverage. Events that result in significant personal injury or damage to our property or third parties or other losses that are not fully covered by insurance could have a material adverse effect on our results of operations and financial condition.

We depend on a small number of customers for the majority of our fuel-grade ethanol sales. A reduction in business from any of these customers could cause a significant decline in our overall sales and profitability.

The majority of our fuel-grade ethanol sales are generated from a small number of customers. During 2019 and 2018, two customers accounted for an aggregate of approximately \$336 million and \$367 million in net sales of our fuel-grade ethanol, representing 24% and 25% of our total net sales, respectively, for those periods. Our agreements with these customers generally do not require them to purchase any specified volume or dollar value of fuel-grade ethanol, or to make any purchases whatsoever. Therefore, in any future period, our sales generated from these customers, individually or in the aggregate, may not equal or exceed historical levels. If sales to any of these customers cease or decline, we may be unable to replace these sales with sales to either existing or new customers in a timely manner, or at all. A cessation or reduction of sales to one or more of these customers could cause a significant decline in our overall sales and profitability.

We incur significant expenses to maintain and upgrade our distilleries and operating equipment, and any interruption in our operations would harm our operating performance.

We regularly incur significant expenses to maintain and upgrade our distilleries and operating equipment. The machines and equipment we use to produce our products are complex, have many parts and some are run on a continuous basis. We must perform routine maintenance on our equipment and will have to periodically replace a variety of parts such as motors, pumps, pipes and electrical parts. In addition, our distilleries require periodic shutdowns to perform major maintenance and upgrades. These scheduled distillery shutdowns result in decreased sales and increased costs in the periods in which a shutdown occurs and could result in unexpected operational issues in future periods as a result of changes to equipment and operational and mechanical processes made during the shutdown period.

Our lack of long-term orders for fuel-grade ethanol and commitments by our customers could lead to a rapid decline in our sales and profitability.

We cannot rely on long-term orders for fuel-grade ethanol or commitments by our customers for protection from the negative financial effects of a decline in the demand for fuel-grade ethanol or a decline in the demand for our marketing services. The limited certainty of fuel-grade ethanol orders can make it difficult for us to forecast our sales and allocate our resources in a manner consistent with our actual sales. Moreover, our expense levels are based in part on our expectations of future sales and, if our expectations regarding future sales are inaccurate, we may be unable to reduce costs in a timely manner to adjust for sales shortfalls. Furthermore, because we depend on a small number of fuel-grade ethanol customers for a significant portion of our sales, the ramifications of these risks are greater in magnitude than if our sales of fuel-grade ethanol were less concentrated. As a result of our lack of long-term orders for fuel-grade ethanol and customer commitments, we may experience a rapid decline in our sales and profitability.

Our independent registered public accounting firm's report for the year ended December 31, 2019 includes an explanatory note describing a substantial doubt as to our ability to continue as a going concern.

As a result of fuel-grade ethanol industry conditions that negatively affected our business, our independent registered public accounting firm included in its report on our audited consolidated financial statements as of and for the year ended December 31, 2019 an explanatory note describing a substantial doubt as to our ability to continue as a going concern. A "going concern" opinion indicates that the financial statements have been prepared assuming we will continue as a going concern, and do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets, or the amounts and classification of liabilities, that may result if we do not continue as a going concern. The presence of a going concern note to our financial statements may have an adverse impact on our business relationships with third parties, and could make it more difficult for us to raise additional financing, all of which could have a material adverse impact on our business and prospects.

Risks Related to This Offering and Ownership of Our Common Stock

We have broad discretion as to the use of the net proceeds we receive from this offering and may not use them effectively.

We retain broad discretion to use the net proceeds from this offering and may use the net proceeds for repayment of certain existing indebtedness, working capital needs, capital expenditures, acquisitions and other general corporate purposes. Accordingly, you will have to rely upon the judgment of our management with respect to the use of those net proceeds. Our stockholders may not agree with the manner in which our management chooses to allocate and spend the net proceeds. Moreover, our management may use the net proceeds for corporate purposes that may not increase our profitability or our market value. The failure by our management to apply these funds effectively could harm our business. See "Use of Proceeds" on page S-21.

Future sales of substantial amounts of our common stock could adversely affect the market price of our common stock.

Future sales of substantial amounts of our common stock, or securities convertible or exchangeable into shares of our common stock, into the public market, including shares of our common stock issued upon exercise of options and warrants, or perceptions that those sales could occur, could adversely affect the prevailing market price of our common stock and our ability to raise capital in the future.

Based on the sale of 5,075,000 shares of our common stock in this offering, we will be selling a number of shares of common stock which represents approximately 8% of the number of shares of common stock that we currently have outstanding. Resales of substantial amounts of the shares of our common stock issued in this offering, together with shares of our common stock issuable upon conversion or exercise of currently outstanding derivative securities, could have a negative effect on our stock price.

Our stock price is highly volatile, which could result in substantial losses for investors purchasing shares of our common stock and in litigation against us.

The market price of our common stock has fluctuated significantly in the past and may continue to fluctuate significantly in the future. The market price of our common stock may continue to fluctuate in response to one or more of the following factors, many of which are beyond our control:

- our ability to effectively transition from a predominantly fuel-grade ethanol company to a company focused on the production and sale of specialty alcohols and essential ingredients;
- fluctuations in the market prices of our products;
- fluctuations in the costs of key production input commodities such as corn and natural gas;
- the volume and timing of the receipt of orders for our products from major customers;
- competitive pricing pressures;
- anticipated trends in our financial condition and results of operations;
- changes in market valuations of companies similar to us;
- stock market price and volume fluctuations generally;
- regulatory developments or increased enforcement;
- fluctuations in our quarterly or annual operating results;
- additions or departures of key personnel;
- our ability to obtain any necessary financing;
- our financing activities and future sales of our common stock or other securities; and
- our ability to maintain contracts that are critical to our operations.

Demand for fuel-grade ethanol could be adversely affected by a slow-down in the overall demand for oxygenate and gasoline additive products. The levels of our fuel-grade ethanol production and purchases for resale will be based upon forecasted demand. Accordingly, any inaccuracy in forecasting anticipated revenues and expenses could adversely affect our business. The failure to receive anticipated orders or to complete delivery in any quarterly period could adversely affect our results of operations for that period. Quarterly and annual results are not necessarily indicative of future performance for any particular period, and we may not experience revenue growth or profitability on a quarterly or an annual basis.

The price at which you purchase shares of our common stock may not be indicative of the price that will prevail in the trading market. You may be unable to sell your shares of common stock at or above your purchase price, which may result in substantial losses to you and which may include the complete loss of your investment. In the past, securities class action litigation has often been brought against a company following periods of high stock price volatility. We may be the target of similar litigation in the future. Securities litigation could result in substantial costs and divert management's attention and our resources away from our business.

You will experience immediate and substantial dilution in the net tangible book value per share of the common stock you purchase.

Since the offering price per share of common stock being offered is substantially higher than the net tangible book value per share of our common stock, you will suffer substantial dilution in the net tangible book value of the common stock you purchase in this offering. Based on the offering price of \$8.42 per share of common stock, if you purchase shares of common stock in this offering, you will suffer immediate and substantial dilution of \$3.86 per share, assuming no issuance of any pre-funded warrants in this offering or Series A Warrants in the concurrent private placement, in the net tangible book value of the common stock. In addition, as a result of the sale of 5,075,000 shares of common stock in this offering at the offering price per share on the cover page of this prospectus, and the pre-funded warrants to purchase 3,825,493 shares of common stock and the Series A Warrants to purchase 8,900,493 shares of common stock, approximately 120,000 additional shares of our common stock will be issuable upon conversion of our Series B Preferred Stock. See the section entitled "Dilution" below for a more detailed discussion of the dilution you would incur if you purchase common stock in this offering.

Because we do not intend to pay any cash dividends on our shares of common stock in the near future, our stockholders will not be able to receive a return on their shares unless and until they sell them.

We intend to retain a significant portion of any future earnings to finance the development, operation and expansion of our business. We do not anticipate paying any cash dividends on our common stock in the near future. The declaration, payment, and amount of any future dividends will be made at the discretion of our board of directors, and will depend upon, among other things, the results of operations, cash flows, and financial condition, operating and capital requirements, and other factors as our board of directors considers relevant. There is no assurance that future dividends will be paid, and, if dividends are paid, there is no assurance with respect to the amount of any such dividend. Unless our board of directors determines to pay dividends, our stockholders will be required to look to appreciation of our common stock to realize a gain on their investment. There can be no assurance that this appreciation will occur.

There is no public market for the pre-funded warrants being offered in this offering.

There is no established public trading market for the pre-funded warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply to list the pre-funded warrants on any securities exchange or nationally recognized trading system, including The Nasdaq Capital Market. Without an active market, the liquidity of the pre-funded warrants will be limited.

Holders of the pre-funded warrants purchased in this offering will have no rights as common stockholders until such holders exercise such warrants and acquire our common stock.

Until holders of the pre-funded warrants acquire shares of our common stock upon exercise thereof, holders of such pre-funded warrants will have no rights with respect to the shares of our common stock underlying such pre-funded warrants. Upon exercise of the pre-funded warrants, such holders will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

USE OF PROCEEDS

We estimate that the net proceeds from the sale of our common stock and pre-funded warrants in this offering will be approximately \$70 million, excluding any exercise of the pre-funded warrants issued in connection with this offering and the exercise of any Series A Warrants in the concurrent private placement, after deducting underwriting discounts and commissions and our estimated expenses related to the offering. We will only receive additional proceeds from the exercise of the pre-funded warrants issuable in this offering if such pre-funded warrants are exercised at \$0.0001 per share of common stock and the holders of such pre-funded warrants pay the exercise price in cash.

We currently intend to use a portion of the net proceeds to repay a portion of our indebtedness under some or all of the following credit facilities (i) the term loan credit facility entered into by our subsidiary, Pacific Ethanol Pekin, LLC, or PE Pekin, with 1st Farm Credit Services, PCA and CoBank, ACB, or CoBank, which matures on August 20, 2021 and bears interest at a rate per annum equal to the 30-day LIBOR plus 5.75%, (ii) the revolving credit facility entered into by PE Pekin with CoBank, which matures on February 1, 2022 and bears interest at a rate per annum equal to the 30-day LIBOR plus 5.75%, (iii) the term loan credit facility entered into by our subsidiary, Illinois Corn Processing, LLC, or ICP, with Compeer Financial, PCA and CoBank, which matures on September 1, 2021 and bears interest at a rate per annum equal to the 30-day LIBOR plus 3.75%, (iv) the revolving credit facility entered into by ICP with CoBank, which matures on September 1, 2021 and bears interest at a rate per annum equal to the 30-day LIBOR plus 3.75%, and (v) our senior secured notes, which mature on December 15, 2021 and bear interest at a rate per annum equal to 15.0%. We intend to use the remaining net proceeds for working capital needs, capital expenditures, acquisitions and other general corporate purposes.

DIVIDEND POLICY

We have never paid cash dividends on our common stock and do not intend to pay cash dividends on our common stock in the foreseeable future. We anticipate that we will retain any earnings for use in the continued development of our business.

Our current and future debt financing arrangements may limit or prevent cash distributions from our subsidiaries to us, depending upon the achievement of certain financial and other operating conditions and our ability to properly service our debt, thereby limiting or preventing us from paying cash dividends on our common stock. In addition, the holders of our outstanding Series B Preferred Stock are entitled to dividends of 7% per annum, payable quarterly.

DILUTION

If you invest in our common stock, you will experience dilution to the extent of the difference between the public offering price per share and the net tangible book value per share of our common stock immediately after this offering.

Our net tangible book value as of September 30, 2020, was approximately \$242.5 million, or \$3.82 per share of our common stock. "Net tangible book value" is total assets minus the sum of liabilities and intangible assets. "Net tangible book value per share" is net tangible book value divided by the total number of shares outstanding. Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the net tangible book value per share of our common stock immediately after this offering.

After giving effect to the sale of 5,075,000 shares of our common stock in this offering at the public offering price of \$8.42 per share and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2020, would have been approximately \$312.5 million, or \$4.56 per share. This represents an immediate increase in net tangible book value of \$0.74 per share to existing stockholders and immediate dilution in net tangible book value of \$3.86 per share to new investors purchasing our common stock in this offering at the public offering price per share. The following table illustrates this dilution on a per share basis:

Offering price per share		\$	8.42
Net tangible book value per share as of September 30, 2020		\$	3.82
Increase in net tangible book value per share attributable to new investors		\$	0.74
As adjusted net tangible book value per share after giving effect to this offering		\$	<u>4.56</u>
Dilution in net tangible book value per share to investors in this offering		\$	<u>3.86</u>

The above discussion and table are based on 63,482,832 shares of our common stock outstanding as of September 30, 2020 and excludes the following as of September 30, 2020:

- 700,032 shares of common stock reserved for issuance under our 2016 Plan;
- 228,585 shares of common stock reserved for issuance upon exercise of options issued under our 2006 Plan at a weighted average exercise price of \$4.12 per share;
- 3,825,493 shares of common stock issuable upon exercise of the pre-funded warrants to be issued to investors in this offering with an exercise price of \$0.0001 per share;
- 8,900,493 shares of common stock issuable upon exercise of the Series A Warrants to be issued to the investors in the private placement concurrent with this offering at an exercise price of \$9.757 per share;
- 964,230 shares of common stock reserved for issuance upon conversion of our Series B Preferred Stock, which amount includes an additional 119,908 shares of common stock that are issuable upon conversion of our Series B Preferred Stock as a result of the sale of 5,075,000 shares of common stock in this offering at the offering price per share on the cover page of this prospectus, the pre-funded warrants to purchase 3,825,493 shares of common stock and the Series A Warrants to purchase 8,900,493 shares of common stock; and
- any additional shares of common stock we may issue from time to time after that date.

The above illustration of dilution per share to the investors participating in this offering assumes no conversion of outstanding preferred shares or exercise of outstanding options to purchase shares of our common stock. To the extent that options or preferred shares outstanding as of September 30, 2020 or issued thereafter have been or may be exercised or converted or other shares issued, the investors purchasing shares of our common stock in this offering may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization as of September 30, 2020 on (i) an actual basis, and (ii) an as adjusted basis to give effect to the sale of the shares of common stock offered hereby (assuming net proceeds of approximately \$70 million).

The following table should be read in conjunction with “Use of Proceeds” and our consolidated financial statements and related notes, which are incorporated by reference into this prospectus supplement. We can provide no assurance that we will be able to close the offering contemplated in this prospectus supplement.

	At September 30, 2020	
	Actual	As Adjusted
	(in thousands, except share and per share amounts)	
	(unaudited)	(unaudited)
Cash and cash equivalents	\$ 38,730	\$ 108,730
Long-term debt	\$ 162,889	\$ 162,889
Stockholders' equity:		
Preferred stock, \$0.001 par value: Shares authorized: 10,000,000; Series A: Shares authorized: 1,684,375; shares issued: 0 Series B: Shares authorized: 1,580,790; shares issued: 926,927	1	1
Common stock, \$0.001 par value: Shares authorized: 300,000,000; shares issued: 63,482,832 shares on an actual basis and 68,557,832 shares issued on an as adjusted basis	63	69
Non-voting common stock, \$0.001 par value: Shares authorized: 3,553; shares issued: 896 shares issued on an actual basis and 896 shares issued on an as-adjusted basis	–	–
Additional paid-in capital	963,606	1,033,600
Accumulated other comprehensive loss	(2,370)	(2,370)
Accumulated deficit	(716,084)	(716,084)
Total stockholders' equity	245,216	315,216
Total capitalization	\$ 408,105	\$ 478,105

The table above excludes the following as of September 30, 2020:

- 700,032 shares of common stock reserved for issuance under our 2016 Plan;
- 228,585 shares of common stock reserved for issuance upon exercise of options issued under our 2006 Plan at a weighted average exercise price of \$4.12 per share;
- 3,825,493 shares of common stock issuable upon exercise of the pre-funded warrants to be issued to investors in this offering with an exercise price of \$0.0001 per share;
- 8,900,493 shares of common stock issuable upon exercise of the Series A Warrants to be issued to the investors in the private placement concurrent with this offering at an exercise price of \$9.757 per share;
- 964,230 shares of common stock reserved for issuance upon conversion of our Series B Preferred Stock, which amount includes an additional 119,908 shares of common stock that are issuable upon conversion of our Series B Preferred Stock as a result of the sale of 5,075,000 shares of common stock in this offering at the offering price per share on the cover page of this prospectus, the pre-funded warrants to purchase 3,825,493 shares of common stock and the Series A Warrants to purchase 8,900,493 shares of common stock; and
- any additional shares of common stock we may issue from time to time after that date.

DESCRIPTION OF CAPITAL STOCK

Our authorized capital stock consists of 300,000,000 shares of common stock, \$0.001 par value per share, and 10,000,000 shares of preferred stock, \$0.001 par value per share, of which 1,684,375 shares are designated as Series A Cumulative Redeemable Convertible Preferred Stock, or Series A Preferred Stock, and 1,580,790 shares are designated as Series B Preferred Stock. As of September 30, 2020, there were 63,482,832 shares of common stock, 896 shares of non-voting common stock, no shares of Series A Preferred Stock and 926,927 shares of Series B Preferred Stock issued and outstanding.

Our Series B Preferred Stock benefits from anti-dilution protections. As a result of the sale of 5,075,000 shares of common stock in this offering at the offering price per share on the cover page of this prospectus, the pre-funded warrants to purchase 3,825,493 shares of common stock and the Series A Warrants to purchase 8,900,493 shares of common stock, approximately 120,000 additional shares of our common stock will be issuable upon conversion of our Series B Preferred Stock.

The material terms and provisions of our capital stock, including our common stock, are described under the caption "Description of Capital Stock" starting on page 18 of the accompanying prospectus.

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC. Its telephone number is (718) 921-8200.

DESCRIPTION OF PRE-FUNDED WARRANTS

The following summary of certain terms and provisions of the pre-funded warrants that are being offered hereby is not complete and is subject to and qualified in its entirety by the form of pre-funded warrant which will be provided to each investor in this offering and will be filed with the Securities and Exchange Commission on a current report on Form 8-K in connection with this offering. Prospective investors should carefully review the terms and provisions of the form of pre-funded warrant for a complete description of the terms and conditions of the pre-funded warrants.

Duration and Exercise Price

Each pre-funded warrant offered hereby will have an initial exercise price per share equal to \$0.0001 and expires five years after the date of issuance. The pre-funded warrants will be immediately exercisable and may be exercised at any time until the pre-funded warrants are exercised in full. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price.

Exercisability

The pre-funded warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the pre-funded warrant to the extent that the holder would own more than 9.99% of the outstanding shares of common stock immediately after exercise, except that upon at least 61 days' prior notice from the holder to us, the holder may increase the amount of ownership of outstanding stock after exercising the holder's pre-funded warrants. No fractional shares of common stock will be issued in connection with the exercise of a pre-funded warrant, but rather the number of shares of common stock to be issued shall be rounded up to the nearest whole number.

Cashless Exercise

In lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the pre-funded warrants if at the time of exercise the registration statement or this prospectus supplement and accompanying prospectus is not available for use for the issuance of all of the shares of common stock issuable upon exercise of the pre-funded warrant.

Fundamental Transaction

In the event of a fundamental transaction, as described in the pre-funded warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding shares of common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding shares of common stock, the holders of the pre-funded warrants will be entitled to receive upon exercise of the pre-funded warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the pre-funded warrants immediately prior to such fundamental transaction.

Transferability

Subject to applicable laws, a pre-funded warrant may be transferred at the option of the holder upon surrender of the pre-funded warrant to us together with the appropriate instruments of transfer.

Exchange Listing

We do not intend to list the pre-funded warrants on any securities exchange or nationally recognized trading system.

Rights as a Stockholder

Except as otherwise provided in the pre-funded warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the pre-funded warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their pre-funded warrants.

PRIVATE PLACEMENT OF SERIES A WARRANTS

In a concurrent private placement, we are also selling to certain institutional investors Series A Warrants to purchase up to 8,900,493 shares of our common stock, which represent 100% of the number of shares of our common stock and shares of common stock issuable upon exercise of the pre-funded warrants being purchased in this offering. Each Series A Warrant will be exercisable for one share of our common stock at an exercise price of \$9.757 per share, will be exercisable beginning six months after the date of issuance and will expire 18-months after the date of issuance. The exercise price and number of Series A Warrant Shares issuable upon the exercise of the Series A Warrants will be subject to adjustment in the event of any stock dividend and split, reverse stock split, recapitalization, reorganization or similar transaction, as described in the Series A Warrants.

A holder of Series A Warrants will have the right to exercise the Series A Warrants on a “cashless” basis in certain circumstances as described in the Series A Warrants, including, among others, if at any time after 30 days after the closing date of the private placement there is no effective registration statement registering the resale of the Series A Warrant Shares. We may also require a holder of Series A Warrants to exercise the Series A Warrants on a cashless basis. Subject to limited exceptions, a holder of Series A Warrants will not have the right to exercise any portion of its Series A Warrants if the holder, together with its affiliates, would beneficially own in excess of 4.99% (or, at the election of the holder, up to 9.99%). Any increase in the beneficial ownership limitation shall not be effective until 61 days following notice of such change to us. In addition, in certain circumstances, upon a fundamental transaction, the holder will have the right to require us to repurchase its Series A Warrants at the Black Scholes value.

In connection with the concurrent private placement, we expect to enter into a Registration Rights Agreement with the investors party thereto under which we will agree to file a registration statement with the Securities and Exchange Commission registering for resale the Series A Warrant Shares.

The Series A Warrants and the Series A Warrant Shares are being offered pursuant to the exemptions provided in Section 4(a)(2) under the Securities Act and Rule 506(b) promulgated thereunder, and they are not being offered pursuant to this prospectus supplement and the accompanying prospectus. There is no established public trading market for the Series A Warrants and we do not expect a market to develop. In addition, we do not intend to list the Series A Warrants on The Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system. All purchasers are required to be “accredited investors” as such term is defined in Rule 501(a) under the Securities Act.

UNDERWRITING

Guggenheim Securities, LLC is acting as representative of each of the underwriters named below. Subject to the terms and conditions set forth in the underwriting agreement between us and the underwriters, each of the underwriters has agreed, severally and not jointly, to purchase from us, the number of shares of common stock set forth opposite its name below.

Underwriter	Number of Shares	Number of Pre-Funded Warrants(1)
Guggenheim Securities, LLC	4,060,000	3,060,395
Craig-Hallum Capital Group LLC	507,500	382,549
H.C. Wainwright & Co., LLC	507,500	382,549
Total	<u>5,075,000</u>	<u>3,825,493</u>

- (1) We are also offering to each purchaser whose purchase of shares of our common stock in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 9.99% of our outstanding shares of common stock immediately following the consummation of this offering, the opportunity to purchase, if the purchaser so chooses, pre-funded warrants to purchase common stock, or the pre-funded warrants, in lieu of shares of our common stock. Each pre-funded warrant will be exercisable for one share of our common stock.

Subject to the terms and conditions set forth in the underwriting agreement, the underwriters have agreed, severally and not jointly, to purchase all of the shares and/or pre-funded warrants sold under the underwriting agreement, if any are purchased. In no event shall the sum of the shares of common stock and the shares of common stock issuable upon the exercise of the pre-funded warrants exceed 8,900,493 shares of common stock. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the shares and/or pre-funded warrants subject to their acceptance of the shares of common stock from us and subject to prior sale. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Commissions and Discounts; Expenses

The underwriters have advised us that they propose initially to offer the shares and/or the pre-funded warrants to the public at the public offering price set forth on the cover of this prospectus supplement and to dealers at that price less a concession not in excess of \$0.2865 per share. After the initial offering, the public offering price, concession or any other term of the offering may be changed.

The following table shows the public offering price, the underwriting discounts and commissions that we are to pay the underwriters and the proceeds, before expenses, to us in connection with this offering. Regardless of whether any purchaser opts to purchase any pre-funded warrants, the underwriting discounts and commissions will remain the same as described in the table below:

	<u>Per Share</u>	<u>Per Pre-Funded Warrant</u>	<u>Total</u>
Public offering price	\$ 8.42	\$ 8.4199	\$ 74,941,768.51
Underwriting discounts and commissions to be paid by us	\$ 0.4775	\$ 0.4775	\$ 4,250,000
Proceeds, before expenses, to us	\$ 7.9425	\$ 7.9424	\$ 70,691,768.51

We estimate expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately \$690,000, which includes certain expenses incurred by the underwriters in connection with this offering that will be reimbursed by us. We have agreed to reimburse the underwriters for certain expenses incurred by them in connection with this offering.

No Sales of Similar Securities

We have agreed that we will not, for a period of 90 days after the date of this prospectus supplement without the prior written consent of the representative, directly or indirectly offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of, any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock, other than the sale of our common stock pursuant to this prospectus supplement, the issuance of private placement warrants and the shares of common stock issuable upon exercise of the private placement warrants pursuant to the concurrent private placement of warrants pursuant to a securities purchase agreement entered into between us and a certain investor as of the date of this prospectus supplement and the issuance of restricted common stock or options to acquire common stock pursuant to the our employee benefit plans, qualified stock option plans or other employee compensation plans as such plans are in existence on the date of the final prospectus supplement and described or incorporated by reference into the final prospectus supplement and the issuance of common stock pursuant to the valid exercises of options, warrants or rights outstanding on the date of the final prospectus supplement.

Pursuant to certain lock-up agreements, our executive officers and directors have agreed that they will not, for a period of 90 days (and for a certain executive officer who owns, or beneficially owns, an aggregate of 60,639 shares of common stock, 30 days) after the date of this prospectus supplement without the prior written consent of the representative, (i) offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of, or publicly announce the intention to otherwise dispose of, any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock (including, without limitation, shares of common stock or any such securities which may be deemed to be beneficially owned by the lock-up signatory in accordance with the rules and regulations promulgated under the Securities Act, as the same may be amended or supplemented from time to time (such shares or securities, the "Beneficially Owned Shares")), (ii) enter into any swap, hedge or other agreement or arrangement that transfers in whole or in part, the economic risk of ownership of any Beneficially Owned Shares, common stock or securities convertible into or exercisable or exchangeable for common stock, or (iii) engage in any short selling of any Beneficially Owned Shares, common stock or securities convertible into or exercisable or exchangeable for common stock. Notwithstanding the foregoing, beginning on a date that is 30 days after the date of this prospectus supplement, a certain executive officer may exercise or exchange any option or warrant to acquire shares of common stock or options to purchase shares of common stock, in each case for cash or on a "cashless" or "net exercise" basis, pursuant to any stock option, stock bonus or other stock plan or arrangement described or incorporated by reference in the registration statement of which this prospectus supplement forms a part; provided, however, that the underlying shares of common stock shall continue to be subject to the restrictions on transfer set forth in that lock-up agreement and that no filing by any party under the Exchange Act or other public announcement shall be required or shall be made voluntarily in connection with such distribution. Any person to whom shares of common stock, securities convertible into or exercisable or exchangeable for common stock or Beneficially Owned Shares are transferred from the lock-up signatory shall be bound by the terms of the lock-up agreement.

This restriction terminates after the close of trading of the common stock on and including the 90th day after the date of this prospectus. The representatives may, in its sole discretion and at any time or from time to time before the termination of the 90-day period release all or any portion of the securities subject to lock-up agreements. There are no existing agreements between the underwriters and any of our stockholders who will execute a lock-up agreement providing consent to the sale of shares prior to the expiration of the lock-up period.

The Nasdaq Capital Market Listing

Our shares of common stock are traded on The Nasdaq Capital Market under the symbol “PEIX.”

Price Stabilization and Short Positions

Until the distribution of the shares and/or pre-funded warrants is completed, Securities and Exchange Commission rules may limit underwriters and selling group members from bidding for and purchasing our common stock. However, the representative may engage in transactions that stabilize the price of the common stock, such as bids or purchases to peg, fix or maintain that price.

In connection with the offering, the underwriters may purchase and sell our common stock in the open market. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. “Covered” short sales are sales made in an amount not greater than the underwriters’ option described above. The underwriters may close out any covered short position by either exercising their option or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the option granted to them. “Naked” short sales are sales in excess of such option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of shares of common stock made by the underwriters in the open market prior to the closing of the offering.

Similar to other purchase transactions, the underwriters’ purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. The underwriters may conduct these transactions on The Nasdaq Capital Market, in the over-the-counter market or otherwise.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, neither we nor any of the underwriters make any representation that the representative will engage in these transactions or that these transactions, once commenced, will not be discontinued

Passive Market Making

Any underwriters who are qualified market makers on The Nasdaq Capital Market may engage in passive market making transactions in the securities on The Nasdaq Capital Market in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker’s bid, however, the passive market maker’s bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

Electronic Distribution

A prospectus in electronic format may be made available by e-mail or through online services maintained by one or more of the underwriters or their affiliates. In those cases, prospective investors may view offering terms online and may be allowed to place orders online. The underwriters may agree with us to allocate a specific number of shares of common stock for sale to online brokerage account holders. Any such allocation for online distributions will be made by the underwriters on the same basis as other allocations. Other than the prospectus in electronic format, the information on the underwriters' web sites and any information contained in any other web site maintained by any of the underwriters is not part of this prospectus, has not been approved and/or endorsed by us or the underwriters and should not be relied upon by investors.

Other Activities and Relationships

The underwriters and certain of their affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Some of the underwriters and certain of their affiliates may in the future engage in investment banking and other commercial dealings in the ordinary course of business with us and our affiliates, for which they may in the future receive customary fees, commissions and expenses.

In addition, in the ordinary course of their business activities, the underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers.

Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC. Its telephone number is (718) 921-8200.

Selling Restrictions

Notice to Prospective Investors in the European Economic Area and United Kingdom

In relation to each Member State of the European Economic Area (each, a "Member State"), no shares have been offered or will be offered pursuant to the offering to the public in that Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Member State or, where appropriate, approved in another Member State and notified to the competent authority in that Member State, all in accordance with the Prospectus Regulation, except that offers of shares may be made to the public in that Member State at any time under the following exemptions under the Prospectus Regulation:

- A. to any legal entity which is a qualified investor as defined under the Prospectus Regulation;
- B. to fewer than 150 natural or legal persons (other than qualified investors as defined under the Prospectus Regulation), subject to obtaining the prior consent of the underwriters; or
- C. in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of shares shall require the Company or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation and each person who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed to and with each of the underwriters and the Company that it is a "qualified investor" within the meaning of Article 2(e) of the Prospectus Regulation.

In the case of any shares being offered to a financial intermediary as that term is used in Prospectus Regulation, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any shares to the public other than their offer or resale in a Member State to qualified investors as so defined or in circumstances in which the prior consent of the underwriters have been obtained to each such proposed offer or resale.

For the purposes of this provision, the expression an “offer to the public” in relation to shares in any Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares, and the expression “Prospectus Regulation” means Regulation (EU) 2017/1129.

Notice to Prospective Investors in the United Kingdom

In addition, in the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are “qualified investors” (as defined in the Prospectus Regulation) (i) who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the “Order”) and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as “relevant persons”) or otherwise in circumstances which have not resulted and will not result in an offer to the public of the shares in the United Kingdom within the meaning of the Financial Services and Markets Act 2000.

Any person in the United Kingdom that is not a relevant person should not act or rely on the information included in this document or use it as basis for taking any action. In the United Kingdom, any investment or investment activity that this document relates to may be made or taken exclusively by relevant persons.

Notice to Residents of Canada

The shares may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the shares must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser’s province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser’s province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Notice to Prospective Investors in Switzerland

The shares may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange (“SIX”) or on any other stock exchange or regulated trading facility in Switzerland. This document does not constitute a prospectus within the meaning of, and has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, the Company or the shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of shares will not be supervised by, the Swiss Financial Market Supervisory Authority (“FINMA”), and the offer of shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes (“CISA”). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares.

LEGAL MATTERS

The validity of the securities being offered by this prospectus will be passed upon by our counsel, Troutman Pepper Hamilton Sanders LLP, Irvine, California. Certain legal matters will be passed upon for the underwriters by White & Case LLP, New York, New York.

EXPERTS

The consolidated financial statements of Pacific Ethanol as of and for the years ended December 31, 2019 and 2018 appearing in Pacific Ethanol's Annual Report on Form 10-K for the year ended December 31, 2019, have been audited by RSM US LLP, an independent registered public accounting firm, as stated in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the Securities and Exchange Commission a registration statement on Form S-3 under the Securities Act, and the rules and regulations promulgated under the Securities Act, with respect to the securities offered under this prospectus supplement. This prospectus supplement, which constitutes a part of the registration statement, does not contain all of the information contained in the registration statement and the exhibits and schedules to the registration statement. Many of the contracts and documents described in this prospectus supplement are filed as exhibits to the registration statements and you may review the full text of these contracts and documents by referring to these exhibits.

For further information with respect to us and the securities offered under this prospectus supplement, reference is made to the registration statement and its exhibits and schedules. We file reports, including annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K with the Securities and Exchange Commission.

The Securities and Exchange Commission maintains an Internet web site that contains reports, proxy and information statements and other information regarding issuers, including Pacific Ethanol, that file electronically with the Securities and Exchange Commission. The Securities and Exchange Commission's Internet website address is <http://www.sec.gov>. Our Internet website address is <http://www.pacificethanol.net>.

We do not anticipate that we will send an annual report to our stockholders until and unless we are required to do so by the rules of the Securities and Exchange Commission.

All trademarks or trade names referred to in this prospectus supplement are the property of their respective owners.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The Securities and Exchange Commission allows us to “incorporate by reference” the information we file with the Securities and Exchange Commission. This means that we can disclose important information to you by referring you to another filed document. Any information referred to in this way is considered part of this prospectus supplement from the date we file that document. Any reports filed by us with the Securities and Exchange Commission after the date of this prospectus supplement and before the date that the offering of the securities by means of this prospectus supplement is terminated will automatically update and, where applicable, supersede any information contained in this prospectus supplement or incorporated by reference in this prospectus supplement. Accordingly, we incorporate by reference the following documents or information filed with the Securities and Exchange Commission:

- Our Current Reports on Form 8-K, which we filed with the Securities and Exchange Commission on [January 3, 2020](#), [January 22, 2020](#), [March 5, 2020](#), [March 12, 2020](#), [March 26, 2020](#), [April 21, 2020](#), [April 23, 2020](#), [May 7, 2020](#), [May 11, 2020](#), [May 29, 2020](#), [August 7, 2020](#), [August 10, 2020](#), [August 13, 2020](#), [October 5, 2020](#) and [October 23, 2020](#);
- Our Amended Current Report on [Form 8-K/A](#) which we filed with the Securities and Exchange Commission on January 24, 2020;
- Our Quarterly Report on [Form 10-Q](#) for the quarterly period ended June 30, 2020, which we filed with the Securities and Exchange Commission on August 13, 2020
- Our Quarterly Report on [Form 10-Q](#) for the quarterly period ended March 31, 2020, which we filed with the Securities and Exchange Commission on May 14, 2020;
- Our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2019, which we filed with the Securities and Exchange Commission on March 30, 2020;
- Our amended Annual Report on Form [10-K/A](#) for the fiscal year ended December 31, 2019, which we filed with the Securities and Exchange Commission on April 29, 2020
- Our Definitive Proxy Statement on [Form 14A](#), which we filed with the Securities and Exchange Commission on September 25, 2020;
- Our amended Definitive Proxy Statement on [Form 14A](#), which we filed with the Securities and Exchange Commission on September 25, 2020;
- Our Definitive Proxy Statement on [Form 14A](#), which we filed with the Securities and Exchange Commission on July 20, 2020;
- Our amended Definitive Proxy Statement on [Form 14A](#), which we filed with the Securities and Exchange Commission on July 20, 2020;
- The description of our capital stock contained in [Exhibit 4.1](#) of our Annual Report on Form 10-K, which we filed with the Securities and Exchange Commission on April 30, 2020; and
- All documents filed by us in accordance with Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act on or after the date of this prospectus supplement and before the termination of an offering under this prospectus supplement, other than documents or information deemed furnished and not filed in accordance with Securities and Exchange Commission rules.

We will provide a copy of the documents we incorporate by reference, at no cost, to any person who received this prospectus supplement. To request a copy of any or all of these documents, you should write or telephone us at: Investor Relations, Pacific Ethanol, Inc., 400 Capitol Mall, Suite 2060, Sacramento, California 95814, (916) 403-2123. In addition, each document incorporated by reference is readily accessible on our website at www.pacificethanol.com.



PACIFIC ETHANOL, INC.

\$100,000,000

**Debt Securities
Common Stock
Preferred Stock
Warrants
Units**

This prospectus relates to the sale from time to time in one or more offerings of up to \$100,000,000 of debt securities, which we may issue in one or more series; shares of our common stock; shares of our preferred stock, which we may issue in one or more series or classes; warrants to purchase our debt securities, common stock or preferred stock; and units (collectively referred to as the “securities”).

We will provide the specific terms of any securities to be offered in one or more supplements to this prospectus. The prospectus supplements may also add, update or change information contained in this prospectus. This prospectus may not be used to offer and sell securities unless accompanied by a prospectus supplement.

When securities are offered under this prospectus, we will provide you with a prospectus supplement describing the specific securities being offered, the manner in which they are being offered, the offering price of the securities and the net proceeds from the sale of those securities. The securities may be offered separately or together in any combination or as a separate series. You should carefully read this prospectus and any accompanying prospectus supplement, together with any documents incorporated by reference herein and therein, before you invest in our securities. We may sell these securities to or through underwriters, to other purchasers, through dealers or agents or through any combination of these methods, on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section entitled “Plan of Distribution” in this prospectus. If any agents or underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such agents or underwriters and any applicable fees, commissions, discounts and over-allotment options will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds that we expect to receive from such sale will also be set forth in a prospectus supplement.

Our common stock is traded on The Nasdaq Capital Market under the symbol “PEIX.” On June 22, 2020, the last reported sale price of our common stock on The Nasdaq Capital Market was \$0.72.

Investing in our securities involves substantial risks. See “Risk Factors” beginning on page 5 of this prospectus and in the applicable prospectus supplement, and in any other document incorporated by reference herein or therein, for factors you should consider before buying any of our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is July 1, 2020.

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ABOUT THIS PROSPECTUS

This prospectus is part of a “shelf” registration statement that we have filed with the Securities and Exchange Commission, or SEC. By using a shelf registration statement, we may sell, at any time and from time to time in one or more offerings, any combination of the securities described in this prospectus, up to a total dollar amount of \$100,000,000. This prospectus provides you with a general description of the securities that we may offer. Each time we sell securities, we will provide a prospectus supplement and attach it to this prospectus. The prospectus supplement will contain more specific information about the terms of that offering, including the specific amounts, prices and terms of the securities offered. The prospectus supplements may also add, update or change information contained or incorporated by reference in this prospectus. Any statement that we make in this prospectus will be modified or superseded by any inconsistent statement made by us in a prospectus supplement. If there is any inconsistency between the information in this prospectus and the information in the prospectus supplement, you should rely on the information in the prospectus supplement. **This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.**

The exhibits to the registration statement of which this prospectus is a part contain the full text of certain contracts and other important documents we have summarized in this prospectus. Because these summaries may not contain all the information that you may find important in deciding whether to purchase the securities we may offer, you should review the full text of these documents. The registration statement and the exhibits can be obtained from the SEC as indicated under the heading “Where You Can Find Additional Information” below.

You should rely only on the information contained or incorporated by reference in this prospectus or any applicable prospectus supplements filed with the SEC. We have not authorized anyone to provide you with different information and, if you are given any information or representation about these matters that is not contained or incorporated by reference in this prospectus or a prospectus supplement, you must not rely on that information. We are not making an offer to sell securities in any jurisdiction where the offer or sale of such securities is not permitted.

Neither the delivery of this prospectus or any applicable prospectus supplement nor any sale made using this prospectus or any applicable prospectus supplement implies that there has been no change in our affairs or that the information in this prospectus or in any applicable prospectus supplement is correct as of any date after their respective dates. You should not assume that the information in or incorporated by reference in this prospectus or any applicable prospectus supplement prepared by us, is accurate as of any date other than the date(s) on the front covers of those documents. Our business, financial condition, results of operations and prospects may have changed since those dates.

When used in this prospectus, the terms “Pacific Ethanol,” “we,” “our” and “us” refer to Pacific Ethanol, Inc. and its consolidated subsidiaries, unless otherwise specified. Unless otherwise stated or indicated by context, the phrase “this prospectus” refers to the prospectus and any applicable prospectus supplement.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference into this prospectus contain “forward-looking statements” and are intended to be covered by the safe harbor provided for under Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. These forward-looking statements include our current expectations and projections about future results, performance, prospects and opportunities. We have tried to identify these forward-looking statements by using words like “believe,” “expect,” “may,” “will,” “could,” “seek,” “estimate,” “continue,” “anticipate,” “intend,” “future,” “plan” or variations of those terms and other similar expressions, including their use in the negative. You should not place undue reliance on these forward-looking statements, which speak only as to our expectations, as of the date of this prospectus and any applicable prospectus supplement. These forward-looking statements are subject to a number of risks, uncertainties and other factors that could cause our actual results, performance, prospects or opportunities to differ materially from those expressed in, or implied by, these forward-looking statements.

These risks, uncertainties and other factors include, but are not limited to, those set forth under “Risk Factors” discussed under the caption “Item 1A. Risk Factors” in Part I of our most recent Annual Report on Form 10-K or any updates discussed under the caption “Item 1A. Risk Factors” in Part II of our Quarterly Reports on Form 10-Q, together with all of the other information appearing in or incorporated by reference into this prospectus and any applicable prospectus supplement. Given these risks and uncertainties, readers are cautioned not to place undue reliance on our forward-looking statements. Projections included in such risk factors have been prepared based on assumptions, which we believe to be reasonable, but not in accordance with United States generally accepted accounting principles or any guidelines of the SEC. Actual results will vary, perhaps materially, and we undertake no obligation to update the projections at any future date. You are strongly cautioned not to place undue reliance on such projections. All subsequent written and oral forward-looking statements attributable to Pacific Ethanol or to persons acting on our behalf are expressly qualified in their entirety by these cautionary statements. Except as required by federal securities laws, we do not intend to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

DESCRIPTION OF PACIFIC ETHANOL, INC.

Overview

We are a leading producer and marketer of low-carbon renewable fuels in the United States.

We operate seven strategically-located production facilities. Four of our plants are in the Western states of California, Oregon and Idaho, and three of our plants are located in the Midwestern state of Illinois. We are the seventh largest producer of ethanol in the United States based on annualized volumes. Our plants have a combined production capacity of 450 million gallons per year. We market all the ethanol, specialty alcohols and co-products produced at our plants as well as ethanol produced by third parties. In 2019, we marketed nearly 1.0 billion gallons of ethanol and nearly 3.0 million tons of co-products on a dry matter basis. Our business consists of two operating segments: a production segment and a marketing segment.

Our mission is to be a leading producer and marketer of low-carbon renewable fuels, high-value animal feed and high-quality alcohol products in the United States. We intend to accomplish this goal in part by investing in our ethanol production and distribution infrastructure, lowering the carbon intensity of our ethanol, extending our marketing business into new regional and international markets, and implementing new technologies to promote higher production yields and greater efficiencies.

Production Segment

We produce ethanol, specialty alcohols and co-products at our production facilities described below. Our plants located on the West Coast are near their respective fuel and feed customers, offering significant timing, transportation cost and logistical advantages. Our plants located in the Midwest are in the heart of the Corn Belt, benefit from low-cost and abundant feedstock production and allow for access to many additional domestic markets. In addition, our ability to load unit trains and barges from our Pekin, Illinois plants, allows for greater access to international markets.

Currently, we are operating at approximately 50% of production capacity. As market conditions change, we may increase, decrease or idle production at one or more operating facilities or resume operations at any idled facility.

Facility Name	Facility Location	Estimated Annual Capacity (gallons)
Magic Valley	Burley, ID	60,000,000
Columbia	Boardman, OR	40,000,000
Stockton	Stockton, CA	60,000,000
Madera	Madera, CA	40,000,000
Pekin Wet	Pekin, IL	100,000,000
Pekin Dry	Pekin, IL	60,000,000
Pekin ICP	Pekin, IL	90,000,000

We produce ethanol co-products at our production facilities such as wet distillers grains, dry distillers grains with solubles, wet and dry corn gluten feed, condensed distillers solubles, corn gluten meal, corn germ, corn oil, distillers yeast and CO₂.

Marketing Segment

We market ethanol, specialty alcohols and co-products produced by our facilities and market ethanol produced by third parties. We have extensive customer relationships throughout the Western and Midwestern United States. Our ethanol customers are integrated oil companies and gasoline marketers who blend ethanol into gasoline. Our customers depend on us to provide a reliable supply of ethanol, and manage the logistics and timing of delivery with very little effort on their part. Our customers collectively require ethanol volumes in excess of the supplies we produce at our production facilities. We secure additional ethanol supplies from third-party plants in California and other third-party suppliers in the Midwest where a majority of ethanol producers are located. We arrange for transportation, storage and delivery of ethanol purchased by our customers through our agreements with third-party service providers in the Western United States as well as in the Midwest from a variety of sources.

We market our distillers grains and other feed co-products to dairies and feedlots, in many cases located near our ethanol plants. These customers use our feed co-products for livestock as a substitute for corn and other sources of starch and protein. We sell our corn oil to poultry and biodiesel customers. We do not market co-products from other ethanol producers.

Corporate Information

We are a Delaware corporation formed in February 2005. Our principal executive offices are located at 400 Capitol Mall, Suite 2060, Sacramento, California 95814. Our telephone number is (916) 403-2123 and our Internet website is www.pacificethanol.com. The content of our Internet website does not constitute a part of this prospectus.

Additional information about us and our subsidiaries can be obtained from the documents incorporated by reference herein. See “Where You Can Find Additional Information.”

RISK FACTORS

Investing in our securities involves significant risks. Before making an investment decision, you should consider carefully the risks, uncertainties and other factors described in our most recent Annual Report on Form 10-K, as supplemented and updated by subsequent quarterly reports on Form 10-Q and current reports on Form 8-K that we have filed or will file with the SEC, and in documents which are incorporated by reference into this prospectus, as well as the risk factors and other information contained in or incorporated by reference into the applicable prospectus supplement.

If any of these risks were to occur, our business, affairs, prospects, assets, financial condition, results of operations and cash flow could be materially and adversely affected. If this occurs, the market or trading price of our securities could decline, and you could lose all or part of your investment. In addition, please read “Cautionary Note Regarding Forward-Looking Statements” in this prospectus, where we describe additional uncertainties associated with our business and the forward-looking statements included or incorporated by reference into this prospectus.

Our bylaws contain an exclusive forum provision, which could limit our stockholders’ ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees or agents.

Our bylaws provide that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery shall be the sole and exclusive forum for (a) any derivative action or proceeding brought on behalf of us, (b) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of us to us or our stockholders, (c) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, or (d) any action asserting a claim governed by the internal affairs doctrine.

For the avoidance of doubt, the exclusive forum provision described above does not apply to any claims arising under the Securities Act or Exchange Act. Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder, and Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder.

The choice of forum provision in our bylaws may limit our stockholders’ ability to bring a claim in a judicial forum that they find favorable for disputes with us or our directors, officers, employees or agents, which may discourage such lawsuits against us and our directors, officers, employees and agents even though an action, if successful, might benefit our stockholders. The applicable courts may also reach different judgments or results than would other courts, including courts where a stockholder considering an action may be located or would otherwise choose to bring the action, and such judgments or results may be more favorable to us than to our stockholders. With respect to the provision making the Court of Chancery the sole and exclusive forum for certain types of actions, stockholders who do bring a claim in the Court of Chancery could face additional litigation costs in pursuing any such claim, particularly if they do not reside in or near Delaware. Finally, if a court were to find this provision of our bylaws inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could have a material adverse effect on us.

USE OF PROCEEDS

We will retain broad discretion over the use of the net proceeds from the sale of the securities offered by this prospectus. Unless otherwise specified in the applicable prospectus supplement, we currently expect to use the net proceeds of our sale of securities for general corporate purposes, which may include, among other things, working capital requirements, capital expenditures, investments, acquisitions, and the repayment or refinancing of outstanding indebtedness. Pending these uses, we expect to invest the net proceeds in demand deposit accounts or short-term, investment-grade securities.

DESCRIPTION OF DEBT SECURITIES

The complete terms of the debt securities will be contained in the indenture and supplemental indenture applicable to the debt securities unless we are not required under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act, to issue the debt securities pursuant to an indenture. These documents have been or will be included or incorporated by reference as exhibits to the registration statement of which this prospectus is a part. You should read the indenture and supplemental indenture. You should also read the prospectus supplement, which will contain additional information and which may update or change some of the information below.

This section describes the general terms of the debt securities that we may offer using this prospectus. Further terms of the debt securities will be stated in the applicable prospectus supplement. The following description and any description of the debt securities in a prospectus supplement may not be complete and is subject to and qualified in its entirety by reference to the terms of the applicable indenture and supplemental indenture (to the extent we are required to issue the debt securities pursuant to an indenture) and form of debt security.

General

We may issue debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible or exchangeable debt. The senior debt securities will rank equally with any other unsubordinated debt that we may have and may be secured or unsecured. The subordinated debt securities will be subordinate and junior in right of payment, to the extent and in the manner described in the instrument governing the debt, to all or some portion of our senior indebtedness. Any convertible debt securities that we may issue will be convertible into or exchangeable for common stock or other securities of Pacific Ethanol. Conversion may be mandatory or at your option and would be at prescribed conversion rates.

If we are required pursuant to the provisions of the Trust Indenture Act, the debt securities will be issued under one or more indentures, which are contracts between us and an eligible banking institution or other eligible party, as trustee. While the terms we have summarized below will apply generally to any debt securities that we may offer under this prospectus, we will describe the particular terms of any debt securities that we may offer, including debt securities that are issued under an indenture, in more detail in a prospectus supplement.

If required, we will issue the senior debt securities under the senior indenture that we will enter into with the trustee named in the senior indenture. If required, we will issue the subordinated debt securities under the subordinated indenture that we will enter into with the trustee named in the subordinated indenture. We have filed forms of these documents as exhibits to the registration statement of which this prospectus is a part. We use the term “indentures” to refer to both the senior indenture and the subordinated indenture.

The following summaries of the material provisions of the senior debt securities, the subordinated debt securities and the indentures (to the extent applicable to a particular issuance of our debt securities) are not complete and are qualified in their entirety by reference to all of the provisions of the indenture applicable to a particular series of debt securities. You should read the applicable prospectus supplement that we may authorize to be provided to you related to the series of debt securities being offered and, to the extent applicable, the complete indentures that contain the terms of the debt securities. Forms of indentures have been filed as exhibits to the registration statement of which this prospectus is a part, and we will file supplemental indentures and forms of debt securities containing the terms of the debt securities being offered under indentures as exhibits to the registration statement of which this prospectus is a part or such supplemental indentures will be incorporated by reference to reports that we file with the SEC. Except as we may otherwise indicate, the terms of the senior indenture and the subordinated indenture are identical.

The indentures will be qualified under the Trust Indenture Act. We use the term “indenture trustee” to refer to either the senior trustee or the subordinated trustee, as applicable.

The indentures do not limit the amount of other debt that we may incur and do not contain financial or similar restrictive covenants. The indentures do not contain any provision to protect holders of debt securities against a sudden or dramatic decline in our ability to pay our debt.

The prospectus supplement will describe the debt securities offered and the price or prices at which we will offer the debt securities. The description will include:

- the title of the debt securities;
- whether the debt securities are senior debt securities or subordinated debt securities and, if subordinated debt securities, the related subordination terms;
- principal amount being offered, and, if a series, the total amount authorized and the total amount outstanding;
- any limit on the aggregate principal amount of the debt securities or the series of which they are a part;

- the date or dates on which we must pay the principal;
- whether the debt securities will be issued with any original issue discount;
- whether the debt securities are convertible into common stock or other securities or property and, if so, the terms and conditions upon which conversion will be effected, including the initial conversion price or conversion rate and any adjustments thereto and the conversion period;
- the rate or rates at which the debt securities will bear interest, if any, the date or dates from which interest will accrue, and the dates on which we must pay interest;
- whether and under what circumstances, if any, we will pay a premium or additional amounts on any debt securities;
- the place or places where we must pay the principal and any premium or interest on the debt securities;
- the terms and conditions on which we may redeem or retire any debt security, if at all;
- any obligation to redeem or repurchase any debt securities, and the terms and conditions on which we must do so;
- the denominations in which we may issue the debt securities if other than denominations of \$1,000 and any integral multiple thereof;
- the manner in which we will determine the amount of principal of or any premium or interest or additional amounts on the debt securities;
- the principal amount of the debt securities that we will pay upon declaration of acceleration of their maturity if other than 100%;
- the amount that will be deemed to be the principal amount for any purpose, including the principal amount that will be due and payable upon any maturity or that will be deemed to be outstanding as of any date;
- whether the debt securities will be secured or unsecured, and the terms of any secured debt;
- whether the debt securities are defeasible;
- if applicable, the terms of any right to convert debt securities into, or exchange debt securities for, shares of common stock or other securities or property;
- restrictions on transfer, sale or other assignment, if any;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- provisions for a sinking fund, purchase or other analogous fund, if any;

- whether we will issue the debt securities under indentures;
- whether we will issue the debt securities in the form of one or more global securities and, if so, the respective depositaries for the global securities and the terms of the global securities;
- any addition to or change in the events of default applicable to the debt securities and any change in the right of the trustee or the holders to declare the principal amount of any of the debt securities due and payable;
- any addition to or change in the covenants in the indentures, if any, including whether the indenture will restrict our ability or the ability of our subsidiaries to:
 - incur additional indebtedness;
 - issue additional securities;
 - create liens;
 - pay dividends or make distributions in respect of our capital shares or the capital shares of our subsidiaries;
 - redeem capital shares;
 - place restrictions on our subsidiaries' ability to pay dividends, make distributions or transfer assets;
 - make investments or other restricted payments;
 - sell or otherwise dispose of assets;
 - enter into sale-leaseback transactions;
 - engage in transactions with stockholders or affiliates;
 - issue or sell shares of our subsidiaries; or
 - effect a consolidation or merger;
- whether the indenture, if any, will require us to maintain any interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios;
- a discussion of any material United States federal income tax considerations applicable to the debt securities;
- information describing any book-entry features;
- procedures for any auction or remarketing, if any; and

- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, including any events of default that are in addition to those described in this prospectus or any covenants provided with respect to the debt securities that are in addition to those described above, and any terms that may be required by us or advisable under applicable laws or regulations or advisable in connection with the marketing of the debt securities.

We may sell the debt securities at a substantial discount below their stated principal amount. We will describe United States federal income tax considerations, if any, applicable to debt securities sold at an original issue discount in the prospectus supplement. An “original issue discount security” is any debt security that provides for an amount less than the principal amount to be due and payable upon the declaration of acceleration of the maturity under the terms of the applicable indenture. The prospectus supplement relating to any original issue discount securities will describe the particular provisions relating to acceleration of the maturity upon the occurrence of an event of default. In addition, we will describe United States federal income tax or other considerations applicable to any debt securities that are denominated in a currency or unit other than United States dollars in the prospectus supplement.

Conversion and Exchange Rights

The applicable prospectus supplement will describe, if applicable, the terms on which you may convert debt securities into or exchange them for common stock or other securities or property. The conversion or exchange may be mandatory or may be at your option. The prospectus supplement will describe how the number of shares of common stock or other securities or property to be received upon conversion or exchange would be calculated.

Subordination of Subordinated Debt Securities

Unless the prospectus supplement indicates otherwise, the following provisions will apply to the subordinated debt securities. The indebtedness underlying the subordinated debt securities will be payable only if all payments due under our senior indebtedness, including any outstanding senior debt securities, have been made. If we distribute our assets to creditors upon any dissolution, winding-up, liquidation or reorganization or in bankruptcy, insolvency, receivership or similar proceedings, we must first pay all amounts due or to become due on all senior indebtedness before we pay the principal of, or any premium or interest on, the subordinated debt securities. In the event the subordinated debt securities are accelerated because of an event of default, we may not make any payment on the subordinated debt securities until we have paid all senior indebtedness or the acceleration is rescinded. If the payment of subordinated debt securities accelerates because of an event of default, we must promptly notify holders of senior indebtedness of the acceleration.

Unless otherwise indicated in a prospectus supplement, we may not make any payment on the subordinated debt securities if a default in the payment of the principal of, premium, if any, interest or other obligations, including a default under any repurchase or redemption obligation, in respect of senior indebtedness occurs and continues beyond any applicable grace period. We may not make any payment on the subordinated debt securities if any other default occurs and continues with respect to senior indebtedness that permits holders of the senior indebtedness to accelerate its maturity and the trustee receives a notice of such default from us, a holder of such senior indebtedness or other person permitted to give such notice. We may not resume payments on the subordinated debt securities until the defaults are cured or certain periods pass.

If we experience a bankruptcy, dissolution or reorganization, holders of senior indebtedness may receive more, ratably, and holders of subordinated debt securities may receive less, ratably, than our other creditors.

The indentures in the forms initially filed as exhibits to the registration statement of which this prospectus is a part do not limit the amount of indebtedness which we may incur, including senior indebtedness or subordinated indebtedness, and do not limit us from issuing any other debt, including secured debt or unsecured debt.

Form, Exchange and Transfer

We will issue debt securities only in fully registered form, without coupons, and, unless otherwise specified in the prospectus supplement, only in denominations of \$1,000 and any integral multiple thereof. The indentures provide that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company, or DTC, or another depository named by us and identified in a prospectus supplement with respect to that series. We currently anticipate that the debt securities of each series offered and sold pursuant to this prospectus will be issued as global debt securities as described under "Global Securities" and will trade in book-entry form only.

At the option of the holder, subject to the terms of the indentures and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indentures and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will make no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

- issue, register the transfer or exchange of any debt securities of any series being redeemed in part during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

Consolidation, Merger and Sale of Assets

Unless otherwise specified in the prospectus supplement, we may not consolidate with or merge into, or sell, convey, transfer, lease or otherwise dispose of all or substantially all of our properties and assets to, any person, and shall not permit any other person to consolidate with or merge into us, unless:

- either: (i) we are the surviving corporation or (ii) the person formed by or surviving any consolidation, amalgamation or merger or resulting from such conversion (if other than Pacific Ethanol) or to which such sale, assignment, transfer, conveyance or other disposition has been made, is a corporation, limited liability company or limited partnership organized and validly existing under the laws of the United States, any state of the United States or the District of Columbia and assumes our obligations under the debt securities and under the indentures pursuant to agreements reasonably satisfactory to the indenture trustee;
- immediately before and after giving pro forma effect to such transaction, no event of default, and no event which, after notice or lapse of time or both, would become an event of default, has occurred and is continuing; and
- several other conditions, including any additional conditions with respect to any particular debt securities specified in the applicable prospectus supplement, are met.

The terms of any securities that we may offer pursuant to this prospectus may limit our ability to merge or consolidate or otherwise sell, convey, transfer or otherwise dispose of all or substantially all of our assets, which terms would be set forth in the applicable prospectus supplement and supplemental indenture.

Events of Default

Unless otherwise specified in the applicable prospectus supplement, it is anticipated that each of the following will constitute an event of default under the applicable indenture with respect to debt securities of any series:

- failure to pay principal of or any premium on any debt security of that series when due, whether or not, in the case of subordinated debt securities, such payment is prohibited by the subordination provisions of the subordinated indenture;
- failure to pay any interest on any debt securities of that series when due, continued for 30 days, whether or not, in the case of subordinated debt securities, such payment is prohibited by the subordination provisions of the subordinated indenture;
- failure to deposit any sinking fund payment, when due, in respect of any debt security of that series, whether or not, in the case of subordinated debt securities, such deposit is prohibited by the subordination provisions of the subordinated indenture;
- failure to perform or comply with the provisions described under “—Consolidation, Merger and Sale of Assets”;
- failure to perform any of our other covenants in such indenture (other than a covenant included in such indenture solely for the benefit of a series other than that series), continued for 60 days after written notice has been given to us by the applicable indenture trustee, or the holders of at least 25% in principal amount of the outstanding debt securities of that series, as provided in such indenture; and
- certain events of bankruptcy, insolvency or reorganization affecting us or any significant subsidiary.

If an event of default (other than an event of default with respect to Pacific Ethanol described in the last item listed above) with respect to the debt securities of any series at the time outstanding occurs and is continuing, either the applicable trustee or the holders of at least 25% in principal amount of the outstanding debt securities of that series by notice as provided in the applicable indenture may declare the principal amount of the debt securities of that series (or, in the case of any debt security that is an original issue discount debt security, such portion of the principal amount of such debt security as may be specified in the terms of such debt security) to be due and payable immediately, together with any accrued and unpaid interest thereon. If an event of default with respect to Pacific Ethanol described in the last item listed above with respect to the debt securities of any series at the time outstanding occurs, the principal amount of all the debt securities of that series (or, in the case of any such original issue discount security, such specified amount) will automatically, and without any action by the applicable trustee or any holder, become immediately due and payable, together with any accrued and unpaid interest thereon. After any such acceleration, but before a judgment or decree based on acceleration, the holders of a majority in principal amount of the outstanding debt securities of that series may, under certain circumstances, rescind and annul such acceleration if all events of default, other than the non-payment of accelerated principal (or other specified amount), have been cured or waived as provided in the applicable Indenture. For information as to waiver of defaults, see “—Modification and Waiver” below.

Subject to the provisions in the indentures relating to the duties of the trustees in case an event of default has occurred and is continuing, each trustee will be under no obligation to exercise any of its rights or powers under the applicable indenture at the request or direction of any of the holders, unless such holders have offered to such trustee reasonable security or indemnity. Subject to such provisions for the indemnification of the trustees, the holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to the debt securities of that series.

No holder of a debt security of any series will have any right to institute any proceeding with respect to the applicable indenture, or for the appointment of a receiver or a trustee, or for any other remedy thereunder, unless:

- such holder has previously given to the trustee under the applicable indenture written notice of a continuing event of default with respect to the debt securities of that series;
- the holders of not less than 25% in principal amount of the outstanding debt securities of that series have made written request, and such holder or holders have offered reasonable indemnity, to the trustee to institute such proceeding as trustee; and
- the trustee has failed to institute such proceeding, and has not received from the holders of a majority in principal amount of the outstanding debt securities of that series a direction inconsistent with such request, within 60 days after such notice, request and offer.

However, such limitations do not apply to a suit instituted by a holder of a debt security for the enforcement of payment of the principal of or any premium or interest on such debt security on or after the applicable due date specified in such debt security.

We will be required to furnish to each trustee annually, within 150 days after the end of each fiscal year, a certificate by certain of our officers as to whether or not we, to their knowledge, are in default in the performance or observance of any of the terms, provisions and conditions of the applicable indenture and, if so, specifying all such known defaults.

Modification and Waiver

Unless otherwise specified in the prospectus supplement, modifications and amendments of an indenture may be made by us and the applicable trustee with the consent of the holders of a majority in principal amount of the outstanding debt securities of each series affected by such modification or amendment. However, no such modification or amendment may, without the consent of the holder of each outstanding debt security affected thereby:

- change the stated maturity of the principal of, or time for payment of any installment of principal of or interest on, any debt security;
- reduce the principal amount of, or any premium or the rate of interest on, any debt security;
- reduce the amount of principal of an original issue discount security or any other debt security payable upon acceleration of the maturity thereof;
- change the place or the coin or currency of payment of principal of, or any premium or interest on, any debt security;
- impair the right to institute suit for the enforcement of any payment due on any debt security;
- modify the subordination provisions in the case of subordinated debt securities;
- reduce the percentage in principal amount of outstanding debt securities of any series, the consent of whose holders is required for modification or amendment of the indenture;
- reduce the percentage in principal amount of outstanding debt securities of any series necessary for waiver of compliance with certain provisions of the indenture or for waiver of certain defaults; or
- modify such provisions with respect to modification, amendment or waiver, except to increase any such percentage or to provide that certain other provisions of the indenture cannot be modified or waived without the consent of the holder of each outstanding debt security affected thereby.

The holders of a majority in principal amount of the outstanding debt securities of any series may waive compliance by us with certain restrictive provisions of the applicable indenture. The holders of a majority in principal amount of the outstanding debt securities of any series may waive any past default under the applicable indenture, except a default in the payment of principal, premium or interest and certain covenants and provisions of the indenture which cannot be amended without the consent of the holder of each outstanding debt security of such series.

Each of the indentures provides that in determining whether the holders of the requisite principal amount of the outstanding debt securities have given or taken any direction, notice, consent, waiver or other action under such indenture as of any date:

- the principal amount of an original issue discount security that will be deemed to be outstanding will be the amount of the principal that would be due and payable as of such date upon acceleration of maturity to such date;

- the principal amount of a debt security denominated in one or more foreign currencies or currency units that will be deemed to be outstanding will be the United States-dollar equivalent, determined as of such date in the manner prescribed for such debt security, of the principal amount of such debt security (or, in the case of an original issue discount security the United States dollar equivalent on the date of original issuance of such security of the amount determined as provided immediately above); and
- certain debt securities, including those owned by us or any of our other affiliates, will not be deemed to be outstanding.

Except in certain limited circumstances, we will be entitled to set any day as a record date for the purpose of determining the holders of outstanding debt securities of any series entitled to give or take any direction, notice, consent, waiver or other action under the applicable indenture, in the manner and subject to the limitations provided in the indenture. In certain limited circumstances, the trustee will be entitled to set a record date for action by holders. If a record date is set for any action to be taken by holders of a particular series, only persons who are holders of outstanding debt securities of that series on the record date may take such action.

Optional Redemption

If specified in the applicable prospectus supplement, we may elect to redeem all or part of the outstanding debt securities of a series from time to time before the maturity date of the debt securities of that series. Upon such election, we will notify the indenture trustee of the redemption date and the principal amount of debt securities of the series to be redeemed. If less than all the debt securities of the series are to be redeemed, the particular debt securities of that series to be redeemed will be selected by the depository in accordance with its procedures. The applicable prospectus supplement will specify the redemption price for the debt securities to be redeemed (or the method of calculating such price), in each case in accordance with the terms and conditions of those debt securities.

Notice of redemption will be given to each holder of the debt securities to be redeemed not less than 30 nor more than 60 days prior to the date set for such redemption. This notice will include the following information, as applicable: the redemption date; the redemption price (or the method of calculating such price); if less than all of the outstanding debt securities of such series are to be redeemed, the identification (and, in the case of partial redemption, the respective principal amounts) of the particular debt securities to be redeemed; that on the redemption date the redemption price will become due and payable upon each security to be redeemed and, if applicable, that interest thereon will cease to accrue after such date; the place or places where such debt securities are to be surrendered for payment of the redemption price; and that the redemption is for a sinking fund, if such is the case.

Prior to any redemption date, we will deposit or cause to be deposited with the indenture trustee or with a paying agent (or, if we are acting as our own paying agent with respect to the debt securities being redeemed, we will segregate and hold in trust as provided in the applicable indenture) an amount of money sufficient to pay the aggregate redemption price of, and (except if the redemption date shall be an interest payment date or the debt securities of such series provide otherwise) accrued interest on, all of the debt securities or the part thereof to be redeemed on that date. On the redemption date, the redemption price will become due and payable upon all of the debt securities to be redeemed, and interest, if any, on the debt securities to be redeemed will cease to accrue from and after that date. Upon surrender of any such debt securities for redemption, we will pay those debt securities surrendered at the redemption price together, if applicable, with accrued interest to the redemption date.

Any debt securities to be redeemed only in part must be surrendered at the office or agency established by us for such purpose, and we will execute, and the indenture trustee will authenticate and deliver to a holder without service charge, new debt securities of the same series and of like tenor, of any authorized denominations as requested by that holder, in a principal amount equal to and in exchange for the unredeemed portion of the debt securities that holder surrenders.

Satisfaction and Discharge

Each indenture will be discharged and will cease to be of further effect as to all outstanding debt securities of any series issued thereunder, when:

- either:
 - all outstanding debt securities of that series that have been authenticated (except lost, stolen or destroyed debt securities that have been replaced or paid and debt securities for whose payment money has theretofore been deposited in trust and thereafter repaid to us or discharged from such trust) have been delivered to the trustee for cancellation; or
 - all outstanding debt securities of that series that have not been delivered to the trustee for cancellation have become due and payable or will become due and payable at their stated maturity within one year or are to be called for redemption within one year under arrangements satisfactory to the trustee;

and in either case we have irrevocably deposited with the trustee as trust funds for such purpose money in an amount sufficient, without consideration of any reinvestment of interest, to pay and discharge the entire indebtedness of such debt securities not delivered to the trustee for cancellation, for principal, premium, if any, and accrued interest to the date of such deposit (in the case of debt securities that have become due and payable) or to the stated maturity or redemption date;

- we have paid or caused to be paid all other sums payable by us under the indenture with respect to the debt securities of that series; and
- we have delivered an officer's certificate and an opinion of counsel to the trustee stating that all conditions precedent to satisfaction and discharge of the indenture with respect to the debt securities of that series have been complied with.

Legal Defeasance and Covenant Defeasance

If and to the extent indicated in the applicable prospectus supplement, we may elect, at our option at any time, to have provisions of the indentures relating to defeasance and discharge of indebtedness, which we call "legal defeasance," relating to defeasance of certain restrictive covenants applied to the debt securities of any series, or to any specified part of a series, which we call "covenant defeasance."

Legal Defeasance. The indentures provide that, upon our exercise of our option (if any) to have the provisions relating to legal defeasance applied to any debt securities, we will be discharged from all our obligations, and, if such debt securities are subordinated debt securities, the provisions of the subordinated indenture relating to subordination will cease to be effective, with respect to such debt securities (except for certain obligations to convert, exchange or register the transfer of debt securities, to replace stolen, lost or mutilated debt securities, to maintain paying agencies and to hold moneys for payment in trust) upon the deposit in trust for the benefit of the holders of such debt securities of money or United States government obligations, or both, which, through the payment of principal and interest in respect thereof in accordance with their terms, will provide money in an amount sufficient to pay the principal of and any premium and interest on such debt securities on the respective stated maturities in accordance with the terms of the applicable indenture and such debt securities. Such defeasance or discharge may occur only if, among other things:

- we have delivered to the applicable trustee an opinion of counsel to the effect that we have received from, or there has been published by, the United States Internal Revenue Service a ruling, or there has been a change in tax law, in either case to the effect that holders of such debt securities will not recognize gain or loss for federal income tax purposes as a result of such deposit and legal defeasance and will be subject to federal income tax on the same amount, in the same manner and at the same times as would have been the case if such deposit and legal defeasance were not to occur;
- no event of default or event that with the passing of time or the giving of notice, or both, shall constitute an event of default shall have occurred and be continuing at the time of such deposit;
- such deposit and legal defeasance will not result in a breach or violation of, or constitute a default under, any agreement or instrument (other than the applicable indenture) to which we are a party or by which we are bound;
- we must deliver to the trustee an officer's certificate stating that the deposit was not made by us with the intent of preferring the holders of the debt securities over any of our other creditors or with the intent of defeating, hindering, delaying or defrauding any of our other creditors or others;
- we must deliver to the trustee an officer's certificate stating that all conditions precedent set forth in the items set forth immediately above and the item set forth immediately below, as applicable, have been complied with;
- in the case of subordinated debt securities, at the time of such deposit, no default in the payment of all or a portion of principal of (or premium, if any) or interest on any of our senior debt shall have occurred and be continuing, no event of default shall have resulted in the acceleration of any of our senior debt and no other event of default with respect to any of our senior debt shall have occurred and be continuing permitting after notice or the lapse of time, or both, the acceleration thereof: and
- we have delivered to the trustee an opinion of counsel to the effect that all conditions precedent set forth in first, third or fourth item above have been complied with.

Covenant Defeasance. The indentures provide that, upon our exercise of our option (if any) to have the covenant defeasance provisions applied to any debt securities, we may omit to comply with certain restrictive covenants (but not to conversion, if applicable), including those that may be described in the applicable prospectus supplement, the occurrence of certain events of default, which are described above in the fifth item listed under “Events of Default” above and any that may be described in the applicable prospectus supplement, will not be deemed to either be or result in an event of default and, if such debt securities are subordinated debt securities, the provisions of the subordinated indenture relating to subordination will cease to be effective, in each case with respect to such debt securities. In order to exercise such option, we must deposit, in trust for the benefit of the holders of such debt securities, money or United States government obligations, or both, which, through the payment of principal and interest in respect thereof in accordance with their terms, will provide money in an amount sufficient to pay the principal of and any premium and interest on such debt securities on the respective stated maturities in accordance with the terms of the applicable indenture and such debt securities. Such covenant defeasance may occur only if we have delivered to the applicable trustee an opinion of counsel that in effect says that holders of such debt securities will not recognize gain or loss for federal income tax purposes as a result of such deposit and covenant defeasance and will be subject to federal income tax on the same amount, in the same manner and at the same times as would have been the case if such deposit and covenant defeasance were not to occur, and the requirements set forth in the second, third, fourth, fifth, sixth and seventh items above are satisfied. If we exercise this option with respect to any debt securities and such debt securities were declared due and payable because of the occurrence of any event of default, the amount of money and United States government obligations so deposited in trust would be sufficient to pay amounts due on such debt securities at the time of their respective stated maturities but may not be sufficient to pay amounts due on such debt securities upon any acceleration resulting from such event of default. In such case, we would remain liable for such payments.

Notices

We will mail notices to holders of debt securities at the addresses that appear in the security register.

Title

We may treat the person in whose name a debt security is registered as the absolute owner, whether or not such debt security may be overdue, for the purpose of making payment and for all other purposes.

Information Concerning the Indenture Trustee

The indenture trustee undertakes to perform only those duties as are specifically set forth in the applicable indenture. The indenture trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs. The indenture trustee shall be under no obligation to exercise any of the rights or powers vested in it by an indenture at the request or direction of any of the applicable holders pursuant to such indenture unless such holders shall have offered to the indenture trustee security or indemnity satisfactory to the trustee against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction.

Payment and Paying Agents

Unless otherwise indicated in the applicable prospectus supplement, payment of interest on a debt security on any interest payment date will be made to the person in whose name such debt security (or one or more predecessor securities) is registered at the close of business on the regular record date for such interest.

Unless otherwise indicated in the applicable prospectus supplement, principal of and any premium and interest on the debt securities of a particular series will be payable at the office of such paying agent or paying agents as we may designate for such purpose from time to time, except that at our option payment of any interest on debt securities in certificated loan may be made by check mailed to the address of the person entitled thereto as such address appears in the security register. Unless otherwise indicated in the applicable prospectus supplement, the corporate trust office of the trustee under the senior indenture in The City of New York will be designated as sole paying agent for payments with respect to senior debt securities of each series, and the corporate trust office of the trustee under the subordinated indenture in The City of New York will be designated as the sole paying agent for payment with respect to subordinated debt securities of each series. Any other paying agents initially designated by us for the debt securities of a particular series will be named in the applicable prospectus supplement. We may at any time designate additional paying agents or rescind the designation of any paying agent or approve a change in the office through which any paying agent acts, except that we will be required to maintain a paying agent in each place of payment for the debt securities of a particular series.

All money paid by us to a paying agent for the payment of the principal of or any premium or interest on any debt security which remain unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of such debt security thereafter may look only to us for payment.

Governing Law

The indentures and the debt securities will be governed by and construed in accordance with the laws of the state of New York.

DESCRIPTION OF CAPITAL STOCK

Authorized and Outstanding Capital Stock

Our authorized capital stock consists of 300,000,000 shares of common stock, \$0.001 par value per share, 3,553,000 shares of non-voting common stock, \$0.001 par value per share, and 10,000,000 shares of preferred stock, \$0.001 par value per share, of which 1,684,375 shares are designated as Series A Cumulative Redeemable Convertible Preferred Stock, or Series A Preferred Stock, and 1,580,790 shares are designated as Series B Cumulative Convertible Preferred Stock, or Series B Preferred Stock. As of June 22, 2020, there were 55,485,330 shares of common stock, 896 shares of non-voting common stock, no shares of Series A Preferred Stock and 926,942 shares of Series B Preferred Stock issued and outstanding. The following description of our capital stock does not purport to be complete and should be reviewed in conjunction with our certificate of incorporation, including our Certificate of Designations, Powers, Preferences and Rights of the Series A Preferred Stock, or Series A Certificate of Designations, our Certificate of Designations, Powers, Preferences and Rights of the Series B Preferred Stock, or Series B Certificate of Designations, and our bylaws. See “Where You Can Find Additional Information.”

Common Stock

All outstanding shares of our common stock are fully paid and nonassessable. The following summarizes the rights of holders of our common stock:

- a holder of common stock is entitled to one vote per share on all matters to be voted upon generally by the stockholders;
- subject to preferences that may apply to shares of preferred stock outstanding, the holders of common stock are entitled to receive lawful dividends as may be declared by our Board of Directors, or the Board;
- upon our liquidation, dissolution or winding up, the holders of shares of common stock are entitled to receive a pro rata portion of all our assets remaining for distribution after satisfaction of all our liabilities and the payment of any liquidation preference of any outstanding preferred stock;

- there are no redemption or sinking fund provisions applicable to our common stock; and
- there are no preemptive or conversion rights applicable to our common stock.

Non-Voting Common Stock

The rights and preferences of shares of our non-voting common are substantially the same in all respects to the rights and preferences of shares of our common stock, except that (i) the holders of shares of non-voting common stock are not be entitled to vote, (ii) shares of non-voting common stock are convertible into shares of common stock, and (iii) shares of non-voting common stock are not listed on any stock exchange, including The Nasdaq Capital Market.

The following summarizes the rights of holders of our non-voting common stock:

- a holder of non-voting common stock is not entitled to vote on any matter submitted to a vote of the stockholders, however such holders are entitled to prior notice of, and to attend and observe, all meetings of the stockholders;
- subject to preferences that may apply to shares of preferred stock issued and outstanding, the holders of non-voting common stock are entitled to receive lawful dividends as may be declared by the Board on parity in all respects with the holders of common stock, provided that if the holders of common stock become entitled to receive a dividend or distribution of shares of common stock, holders of non-voting common stock shall receive, in lieu of the shares of common stock, an equal number of shares of non-voting common stock;
- upon liquidation, dissolution or winding up Pacific Ethanol, the holders of shares of common stock and non-voting common stock will be entitled to receive a pro rata portion of all of our assets remaining for distribution after satisfaction of all our liabilities and the payment of any liquidation preference of any outstanding preferred stock;
- there are no redemption or sinking fund provisions applicable to our non-voting common stock; and
- there are no preemptive rights applicable to our non-voting common stock.

Conversion

Each share of non-voting common stock is convertible at the option of the holder into one share of our common stock at any time. The conversion price is subject to customary adjustment for stock splits, stock combinations, stock dividends, mergers, consolidations, reorganizations, share exchanges, reclassifications, distributions of assets and issuances of convertible securities, and the like.

No shares of non-voting common stock may be converted into common stock if the holder of such shares or any of its affiliates would, after such conversion, beneficially own in excess of 9.99% of our outstanding shares of common stock (sometimes referred to as the Blocker). The Blocker applicable to the conversion of shares of non-voting common stock may be raised or lowered at the option of the holder to any percentage not in excess of 9.99%, except that any increase will only be effective upon 61-days' prior notice to us.

When shares of non-voting common stock cease to be held by the initial holder or an affiliate of an initial holder of such shares, such shares shall automatically convert into one share of our common stock.

Preferred Stock

Our Board is authorized to issue from time to time, in one or more designated series, any or all of our authorized but unissued shares of preferred stock with dividend, redemption, conversion, exchange, voting and other provisions as may be provided in that particular series. The issuance need not be approved by our common stockholders and need only be approved by holders, if any, of our Series A Preferred Stock and Series B Preferred Stock if, as described below, the shares of preferred stock to be issued have preferences that are senior to or on parity with those of our Series A Preferred Stock and Series B Preferred Stock.

The rights of the holders of our common stock, Series A Preferred Stock and Series B Preferred Stock will be subject to, and may be adversely affected by, the rights of the holders of any preferred stock that may be issued in the future. Issuance of a new series of preferred stock, while providing desirable flexibility in connection with possible acquisitions and other corporate purposes, could have the effect of entrenching our Board and making it more difficult for a third-party to acquire, or discourage a third-party from acquiring, a majority of our outstanding voting stock. The following is a summary of the terms of the Series A Preferred Stock and the Series B Preferred Stock.

Series B Preferred Stock

As of June 22, 2020, 926,942 shares of Series B Preferred Stock were issued and outstanding and an aggregate of 1,419,210 shares of Series B Preferred Stock had been converted into shares of our common stock. The converted shares of Series B Preferred Stock have been returned to undesignated preferred stock. A balance of 653,848 shares of Series B Preferred Stock remain authorized for issuance.

Rank and Liquidation Preference

Shares of Series B Preferred Stock rank prior to our common stock as to distribution of assets upon liquidation events, which include a liquidation, dissolution or winding up of Pacific Ethanol, whether voluntary or involuntary. The liquidation preference of each share of Series B Preferred Stock is equal to \$19.50, or the Series B Issue Price, plus any accrued but unpaid dividends on the Series B Preferred Stock. If assets remain after the amounts are distributed to the holders of Series B Preferred Stock, the assets shall be distributed pro rata, on an as-converted to common stock basis, to the holders of our common stock and Series B Preferred Stock. The written consent of a majority of the outstanding shares of Series B Preferred Stock is required before we can authorize the issuance of any class or series of capital stock that ranks senior to or on parity with shares of Series B Preferred Stock.

Dividend Rights

As long as shares of Series B Preferred Stock remain outstanding, each holder of shares of Series B Preferred Stock are entitled to receive, and shall be paid quarterly in arrears, in cash out of funds legally available therefor, cumulative dividends, in an amount equal to 7.0% of the Series B Issue Price per share per annum with respect to each share of Series B Preferred Stock. The dividends may, at our option, be paid in shares of Series B Preferred Stock valued at the Series B Issue Price. In the event we declare, order, pay or make a dividend or other distribution on our common stock, other than a dividend or distribution made in common stock, the holders of the Series B Preferred Stock shall be entitled to receive with respect to each share of Series B Preferred Stock held, any dividend or distribution that would be received by a holder of the number of shares of our common stock into which the Series B Preferred Stock is convertible on the record date for the dividend or distribution.

The Series B Preferred Stock ranks pari passu with respect to dividends and liquidation rights with the Series A Preferred Stock and pari passu with respect to any class or series of capital stock specifically ranking on parity with the Series B Preferred Stock.

Optional Conversion Rights

Each share of Series B Preferred Stock is convertible at the option of the holder into shares of our common stock at any time. Each share of Series B Preferred Stock is convertible into the number of shares of common stock as calculated by multiplying the number of shares of Series B Preferred Stock to be converted by the Series B Issue Price, and dividing the result thereof by the conversion price. The conversion price was initially \$682.50 per share of Series B Preferred Stock, subject to adjustment; therefore, each share of Series B Preferred Stock was initially convertible into 0.03 shares of common stock, which number is equal to the quotient of the Series B Issue Price of \$19.50 divided by the initial conversion price of \$682.50 per share of Series B Preferred Stock. Accrued and unpaid dividends are to be paid in cash upon any conversion.

Mandatory Conversion Rights

In the event of a Transaction which will result in an internal rate of return to holders of Series B Preferred Stock of 25% or more, each share of Series B Preferred Stock shall, concurrently with the closing of the Transaction, be converted into shares of common stock. A "Transaction" is defined as a sale, lease, conveyance or disposition of all or substantially all of our capital stock or assets or a merger, consolidation, share exchange, reorganization or other transaction or series of related transactions (whether involving us or a subsidiary) in which the stockholders immediately prior to the transaction do not retain a majority of the voting power in the surviving entity. Any mandatory conversion will be made into the number of shares of common stock determined on the same basis as the optional conversion rights above. Accrued and unpaid dividends are to be paid in cash upon any conversion.

No shares of Series B Preferred Stock will be converted into common stock on a mandatory basis unless at the time of the proposed conversion we have on file with the SEC an effective registration statement with respect to the shares of common stock issued or issuable to the holders on conversion of the Series B Preferred Stock then issued or issuable to the holders and the shares of common stock are eligible for trading on The Nasdaq Stock Market (or approved by and listed on a stock exchange approved by the holders of 66 2/3% of the then outstanding shares of Series B Preferred Stock).

Conversion Price Adjustments

The conversion price is subject to customary adjustment for stock splits, stock combinations, stock dividends, mergers, consolidations, reorganizations, share exchanges, reclassifications, distributions of assets and issuances of convertible securities, and the like. The conversion price is also subject to downward adjustments if we issue shares of common stock or securities convertible into or exercisable for shares of common stock, other than specified excluded securities, at per share prices less than the then effective conversion price. In this event, the conversion price shall be reduced to the price determined by dividing (i) an amount equal to the sum of (a) the number of shares of common stock outstanding immediately prior to the issue or sale multiplied by the then existing conversion price, and (b) the consideration, if any, received by us upon such issue or sale, by (ii) the total number of shares of common stock outstanding immediately after the issue or sale. For purposes of determining the number of shares of common stock outstanding as provided in clauses (i) and (ii) above, the number of shares of common stock issuable upon conversion of all outstanding shares of Series B Preferred Stock, and the exercise of all outstanding securities convertible into or exercisable for shares of common stock, will be deemed to be outstanding.

The conversion price will not be adjusted in the case of the issuance or sale of the following: (i) securities issued to our employees, officers or directors or options to purchase common stock granted by us to our employees, officers or directors under any option plan, agreement or other arrangement duly adopted by us and the grant of which is approved by the compensation committee of our Board; (ii) the Series B Preferred Stock and any common stock issued upon conversion of the Series B Preferred Stock; (iii) securities issued on the conversion of any convertible securities, in each case, outstanding on the date of the filing of the Series B Certificate of Designations; and (iv) securities issued in connection with a stock split, stock dividend, combination, reorganization, recapitalization or other similar event for which adjustment is made in accordance with the foregoing.

Voting Rights and Protective Provisions

The Series B Preferred Stock votes together with all other classes and series of our voting stock as a single class on all actions to be taken by our stockholders. Each share of Series B Preferred Stock entitles the holder thereof to the number of votes equal to the number of shares of common stock into which each share of Series B Preferred Stock is convertible on all matters to be voted on by our stockholders, however, the number of votes for each share of Series B Preferred Stock may not exceed the number of shares of common stock into which each share of Series B Preferred Stock would be convertible if the applicable conversion price were \$682.50 (subject to appropriate adjustment for stock splits, stock dividends, combinations and other similar recapitalizations affecting the shares).

We are not permitted, without first obtaining the written consent of the holders of at least a majority of the then outstanding shares of Series B Preferred Stock voting as a separate class, to:

- increase or decrease the total number of authorized shares of Series B Preferred Stock or the authorized shares of our common stock reserved for issuance upon conversion of the Series B Preferred Stock (except as otherwise required by our certificate of incorporation or the Series B Certificate of Designations);
- increase or decrease the number of authorized shares of preferred stock or common stock (except as otherwise required by our certificate of incorporation or the Series B Certificate of Designations);
- alter, amend, repeal, substitute or waive any provision of our certificate of incorporation or our bylaws, so as to affect adversely the voting powers, preferences or other rights, including the liquidation preferences, dividend rights, conversion rights, redemption rights or any reduction in the stated value of the Series B Preferred Stock, whether by merger, consolidation or otherwise;
- authorize, create, issue or sell any securities senior to or on parity with the Series B Preferred Stock or securities that are convertible into securities senior to or on parity the Series B Preferred Stock with respect to voting, dividend, liquidation or redemption rights, including subordinated debt;

- authorize, create, issue or sell any securities junior to the Series B Preferred Stock other than common stock or securities that are convertible into securities junior to Series B Preferred Stock other than common stock with respect to voting, dividend, liquidation or redemption rights, including subordinated debt;
- authorize, create, issue or sell any additional shares of Series B Preferred Stock other than the Series B Preferred Stock initially authorized, created, issued and sold, Series B Preferred Stock issued as payment of dividends and Series B Preferred Stock issued in replacement or exchange therefore;
- engage in a Transaction that would result in an internal rate of return to holders of Series B Preferred Stock of less than 25%;
- declare or pay any dividends or distributions on our capital stock in a cumulative amount in excess of the dividends and distributions paid on the Series B Preferred Stock in accordance with the Series B Certificate of Designations;
- authorize or effect the voluntary liquidation, dissolution, recapitalization, reorganization or winding up of our business; or
- purchase, redeem or otherwise acquire any of our capital stock other than Series B Preferred Stock, or any warrants or other rights to subscribe for or to purchase, or any options for the purchase of, our capital stock or securities convertible into or exchangeable for our capital stock.

Reservation of Shares

We initially were required to reserve 3,000,000 shares of common stock for issuance upon conversion of shares of Series B Preferred Stock and are required to maintain a sufficient number of reserved shares of common stock to allow for the conversion of all shares of Series B Preferred Stock.

Series A Preferred Stock

As of June 22, 2020, no shares of Series A Preferred Stock were issued and outstanding and an aggregate of 5,315,625 shares of Series A Preferred Stock had been converted into shares of our common stock and returned to undesignated preferred stock. A balance of 1,684,375 shares of Series A Preferred Stock remain authorized for issuance. The rights and preferences of the Series A Preferred Stock are substantially the same as the Series B Preferred Stock, except as follows:

- the Series A Issue Price, on which the Series A Preferred Stock liquidation preference is based, is \$16.00 per share;
- dividends accrue and are payable at a rate per annum of 5.0% of the Series A Issue Price per share;
- each share of Series A Preferred Stock is convertible at a rate equal to the Series A Issue Price divided by an initial conversion price of \$840.00 per share;
- holders of the Series A Preferred Stock have a number of votes equal to the number of shares of common stock into which each share of Series A Preferred Stock is convertible on all matters to be voted on by our stockholders, voting together as a single class; provided, however, that the number of votes for each share of Series A Preferred Stock shall not exceed the number of shares of common stock into which each share of Series A Preferred Stock would be convertible if the applicable conversion price were \$943.95 (subject to appropriate adjustment for stock splits, stock dividends, combinations and other similar recapitalizations affecting the shares); and

- we are not permitted, without first obtaining the written consent of the holders of at least a majority of the then outstanding shares of Series A Preferred Stock voting as a separate class, to:
 - change the number of members of our Board to be more than nine members or less than seven members;
 - effect any material change in our industry focus or that of our subsidiaries, considered on a consolidated basis;
 - authorize or engage in, or permit any subsidiary to authorize or engage in, any transaction or series of transactions with one of our or our subsidiaries' current or former officers, directors or members with value in excess of \$100,000, excluding compensation or the grant of options approved by our Board; or
 - authorize or engage in, or permit any subsidiary to authorize or engage in, any transaction with any entity or person that is affiliated with any of our or our subsidiaries' current or former directors, officers or members, excluding any director nominated by the initial holder of the Series B Preferred Stock.

Preemptive Rights

Holders of our Series A Preferred Stock have preemptive rights to purchase a pro rata portion of all capital stock or securities convertible into capital stock that we issue, sell or exchange, or agree to issue, sell or exchange, or reserve or set aside for issuance, sale or exchange. We must deliver each holder of our Series A Preferred Stock a written notice of any proposed or intended issuance, sale or exchange of capital stock or securities convertible into capital stock which must include a description of the securities and the price and other terms upon which they are to be issued, sold or exchanged together with the identity of the persons or entities (if known) to which or with which the securities are to be issued, sold or exchanged, and an offer to issue and sell to or exchange with the holder of the Series A Preferred Stock the holder's pro rata portion of the securities, and any additional amount of the securities should the other holders of Series A Preferred Stock subscribe for less than the full amounts for which they are entitled to subscribe. In the case of a public offering of our common stock for a purchase price of at least \$12.00 per share and a total gross offering price of at least \$50 million, the preemptive rights of the holders of the Series A Preferred Stock shall be limited to 50% of the securities. Holders of our Series A Preferred Stock have a 30 day period during which to accept the offer. We will have 90 days from the expiration of this 30 day period to issue, sell or exchange all or any part of the securities as to which the offer has not been accepted by the holders of the Series A Preferred Stock, but only as to the offerees or purchasers described in the offer and only upon the terms and conditions that are not more favorable, in the aggregate, to the offerees or purchasers or less favorable to us than those contained in the offer.

The preemptive rights of the holders of the Series A Preferred Stock do not apply to any of the following securities: (i) securities issued to our employees, officers or directors or options to purchase common stock granted by us to our employees, officers or directors under any option plan, agreement or other arrangement duly adopted by us and the grant of which is approved by the compensation committee of our Board; (ii) the Series A Preferred Stock and any common stock issued upon conversion of the Series A Preferred Stock; (iii) securities issued on the conversion of any convertible securities, in each case, outstanding on the date of the filing of the Series A Certificate of Designations; (iv) securities issued in connection with a stock split, stock dividend, combination, reorganization, recapitalization or other similar event for which adjustment is made in accordance with the Series A Certificate of Designations; and (v) the issuance of our securities issued for consideration other than cash as a result of a merger, consolidation, acquisition or similar business combination by us approved by our Board.

Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws

A number of provisions of Delaware law, our certificate of incorporation and our bylaws contain provisions that could have the effect of delaying, deferring and discouraging another party from acquiring control of Pacific Ethanol. These provisions, which are summarized below, are expected to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of Pacific Ethanol to first negotiate with our Board. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquiror outweigh the disadvantages of discouraging a proposal to acquire Pacific Ethanol because negotiation of these proposals could result in an improvement of their terms. However, the existence of these provisions also could limit the price that investors might be willing to pay for our securities.

Undesignated Preferred Stock

The ability to authorize undesignated preferred stock makes it possible for our Board to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to acquire us. These and other provisions may have the effect of deferring hostile takeovers or delaying changes in control or management of Pacific Ethanol.

Advance Notice Requirements for Stockholder Proposals and Director Nominations

Our bylaws provide that a stockholder seeking to bring business before an annual meeting of stockholders, or to nominate candidates for election as directors, must provide timely notice of such stockholder's intention in writing. To be timely, a stockholder nominating individuals for election to the Board or proposing business must provide advanced notice to Pacific Ethanol (a) not later than the close of business on the 90th day, nor earlier than the close of business on the 120th day in advance of the anniversary of the previous year's annual meeting if such meeting is to be held on a day which is not more than thirty (30) days in advance of the anniversary of the previous year's annual meeting or not later than seventy (70) days after the anniversary of the previous year's annual meeting, and (b) with respect to any other annual meeting of stockholders, the close of business on the 10th day following the date of public disclosure of the date of such meeting. In the event we call a special meeting of stockholders for the purpose of electing one or more directors to the Board, any stockholder entitled to vote in such election of directors may nominate a person or persons (as the case may be) for election to such position(s) as specified in our notice of meeting, if the stockholder's notice is delivered to us not later than the close of business on the 90th day prior to such special meeting and not earlier than the close of business on the later of the 120th day prior to such special meeting or the 10th day following the date of public disclosure of the date of the special meeting and of the nominees proposed by the Board to be elected at such meeting.

We are subject to the provisions of Section 203 of the Delaware General Corporation Law (sometimes referred to as Section 203) regulating corporate takeovers. In general, Section 203 prohibits a publicly-held Delaware corporation from engaging, under specified circumstances, in a business combination with an interested stockholder for a period of three years following the date the person became an interested stockholder unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares of voting stock outstanding (but not the outstanding voting stock owned by the stockholder) (1) shares owned by persons who are directors and also officers and (2) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or subsequent to the date of the transaction, the business combination is approved by the board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66-2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation's outstanding voting securities. We expect the existence of this provision to have an anti-takeover effect with respect to transactions the Board does not approve in advance. We also anticipate that Section 203 may also discourage attempts that might result in a premium over the market price for the shares of our common stock held by stockholders.

The provisions of Delaware law, our certificate of incorporation and our bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Choice of Forum

Our bylaws provide that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery shall be the sole and exclusive forum for (a) any derivative action or proceeding brought on behalf of us, (b) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of us to us or our stockholders, (c) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, or (d) any action asserting a claim governed by the internal affairs doctrine. For the avoidance of doubt, the exclusive forum provision described above does not apply to any claims arising under the Securities Act or Exchange Act. Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder, and Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder.

DESCRIPTION OF PREFERRED STOCK

We may issue up to 6,734,835 shares of preferred stock, par value \$0.001 per share, from time to time in one or more classes or series, with the exact terms of each series or class established by our Board. Without seeking stockholder approval, our Board may issue preferred stock with voting and other rights that are greater than the rights of our common stock and could adversely affect the voting power of the holders of our common stock.

The rights, preferences, privileges and restrictions of the preferred stock of each series or class will be determined by our Board and set forth in a certificate of designations relating to such series or class that will amend our Certificate of Incorporation. We will include each certificate of designations as an exhibit to the registration statement that includes this prospectus, or as an exhibit to a filing with the SEC that is incorporated by reference into this prospectus. The description of preferred stock in any prospectus supplement will not necessarily describe all of the terms of the preferred stock in detail. You should read the applicable certificate of designations for a complete description of all of the terms.

This section describes the general terms of the preferred stock that we may offer using this prospectus. Further terms of the preferred stock will be stated in the applicable prospectus supplement. The following description and any description of the preferred stock in a prospectus supplement may not be complete and is subject to and qualified in its entirety by reference to the terms of the certificate of designations.

Terms

You should refer to the applicable prospectus supplement relating to the offering of any series of preferred stock for specific terms of the shares, including the following terms:

- the maximum number of shares in the series or class and the distinctive designation;
- number of shares offered and initial offering price;
- the terms on which dividends, if any, will be paid;
- the terms of any preemptive rights;
- the terms on which the shares may be redeemed, if at all;
- the liquidation preference, if any;
- the terms of any retirement or sinking fund for the repurchase or redemption of the shares of the series;
- the terms and conditions, if any, on which the shares of the series shall be convertible into, or exchangeable for, shares of any other class or classes of capital stock, including the conversion price, rate or other manner of calculation, conversion period and anti-dilution provisions, if applicable;
- terms and conditions upon which shares will be exchangeable into debt securities or any other securities, including the exchange price, rate or other manner of calculation, exchange period and any anti-dilution provisions, if applicable;
- the relative ranking and preference as to dividend rights and rights upon liquidation, dissolution or the winding up of our affairs, including liquidation preference amount;
- any limitation on issuance of any series of preferred stock ranking senior to or on a parity with that series of preferred stock as to dividend rights and rights upon liquidation, dissolution or the winding up of our affairs;
- the voting rights, if any, on the shares of the series;
- any or all other preferences and relative, participating, operational or other special rights or qualifications, limitations or restrictions of the shares; and
- any material United States federal income tax consequences.

The issuance of preferred stock may delay, deter or prevent a change in control.

Ranking

Unless we provide otherwise in an applicable prospectus supplement, the preferred stock offered through that supplement will, with respect to dividend rights and rights upon our liquidation, dissolution or winding up, rank:

- senior to all classes or series of our common stock, and to all other equity securities ranking junior to the offered preferred stock;
- on a parity with all of our equity securities ranking on a parity with the offered preferred stock; and
- junior to all of our equity securities ranking senior to the offered preferred stock.

As used herein, the term “equity securities” does not include convertible debt securities.

Voting Rights

Unless otherwise indicated in the applicable prospectus supplement, holders of our preferred stock will not have any voting rights, except as may be required by applicable law.

Dividends

Subject to any preferential rights of any outstanding shares or series of shares, our preferred stockholders are entitled to receive dividends, if any, when and as authorized by our Board, out of legally available funds, as specified in the applicable prospectus supplement.

Redemption

If we provide for a redemption right in a prospectus supplement, the preferred stock offered through that supplement will be subject to mandatory redemption or redemption at our option, in whole or in part, in each case upon the terms, at the times and at the redemption prices set forth in that prospectus supplement.

Liquidation Preference

In the event of our voluntary or involuntary dissolution, liquidation, or winding up, the holders of any series of our preferred stock will be entitled to receive, after distributions to holders of any series or class of our capital shares ranking senior, an amount equal to the stated or liquidation value of the series plus, if applicable, an amount equal to accrued and unpaid dividends. If the assets and funds to be distributed among the holders of our preferred stock will be insufficient to permit full payment to the holders, then the holders of our preferred stock will share ratably in any distribution of our assets in proportion to the amounts that they otherwise would receive on their our preferred stock if the shares were paid in full.

Conversion Rights

The terms and conditions, if any, upon which any series of preferred stock is convertible into common stock or other securities will be set forth in the prospectus supplement relating to the offering of those preferred stock. These terms typically will include number of shares of common stock or other securities into which the preferred stock is convertible; conversion price (or manner of calculation); conversion period; provisions as to whether conversion will be at the option of the holders of the preferred stock or at our option; events, if any, requiring an adjustment of the conversion price; and provisions affecting conversion in the event of the redemption of that series of preferred stock.

Transfer Agent and Registrar

We will identify in a prospectus supplement the transfer agent and registrar for any series of preferred stock offered by this prospectus.

DESCRIPTION OF WARRANTS

The complete terms of the warrants will be contained in the applicable warrant agreement and warrant. These documents will be included or incorporated by reference as exhibits to the registration statement of which this prospectus is a part. You should read the warrant and warrant agreement. You should also read the prospectus supplement, which will contain additional information and which may update or change some of the information below.

This section describes the general terms of the warrants to purchase common stock, preferred stock and/or debt securities that we may offer using this prospectus. Further terms of the warrants will be stated in the applicable prospectus supplement. The following description and any description of the rights in a prospectus supplement may not be complete and is subject to and qualified in its entirety by reference to the terms of the warrant and warrant agreement.

General

We may issue additional warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. If we offer warrants, we will describe the terms in a prospectus supplement. Warrants may be offered independently, together with other securities offered by any prospectus supplement, or through a dividend or other distribution to stockholders and may be attached to or separate from other securities. Warrants may be issued under a written warrant agreement to be entered into between us and the holder or beneficial owner, or under a written warrant agreement with a warrant agent specified in a prospectus supplement. A warrant agent would act solely as our agent in connection with the warrants of a particular series and would not assume any obligation or relationship of agency or trust for or with any holders or beneficial owners of those warrants.

The following are some of the terms relating to a series of warrants that could be described in a prospectus supplement:

- title of the warrants;
- aggregate number of warrants;
- price or prices at which the warrants will be issued;
- designation, number, aggregate principal amount, denominations and terms of the securities that may be purchased on exercise of the warrants;
- date, if any, on and after which the warrants and the debt securities offered with the warrants, if any, will be separately transferable;
- purchase price for each security purchasable on exercise of the warrants;

- the terms for changes to or adjustments in the exercise price, if any;
- dates on which the right to purchase certain securities upon exercise of the warrants will begin and end;
- minimum or maximum number of securities that may be purchased at any one time upon exercise of the warrants;
- anti-dilution provisions or other adjustments to the exercise price of the warrants;
- terms of any right that we may have to redeem the warrants;
- effect of any merger, consolidation, sale or other transfer of our business on the warrants and the applicable warrant agreement;
- name and address of the warrant agent, if any;
- information with respect to book-entry procedures;
- any material United States federal income tax considerations; and
- other material terms, including terms relating to transferability, exchange, exercise or amendments of the warrants.

Until any warrants to purchase our securities are exercised, holders of the warrants will not have any rights of holders of the underlying securities.

Outstanding Warrants

As of June 22, 2020, we had outstanding warrants to purchase 5,500,000 shares of our common stock at an exercise price per share of \$1.00.

DESCRIPTION OF UNITS

The complete terms of the units will be contained in the unit agreement and any document applicable to the securities comprising the units. These documents will be included or incorporated by reference as exhibits to the registration statement of which this prospectus is a part. You should read the unit agreement and any related documents. You also should read the prospectus supplement, which will contain additional information and which may update or change some of the information below.

This section describes the general terms of the units that we may offer using this prospectus. Further terms of the units will be stated in the applicable prospectus supplement. The following description and any description of the units in a prospectus supplement may not be complete and is subject to and qualified in its entirety by reference to the terms of any agreement relating to the units and the related documents applicable to the securities constituting the units.

We may issue units, in one or more series, consisting of any combination of one or more of the other securities described in this prospectus. If we offer units, we will describe the terms in a prospectus supplement. Units may be issued under a written unit agreement to be entered into between us and the holder or beneficial owner, or we could issue units under a written unit agreement with a unit agent specified in a prospectus supplement. A unit agent would act solely as our agent in connection with the units of a particular series and would not assume any obligation or relationship of agency or trust for or with any holders or beneficial owners of those units.

Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security.

The following are some of the unit terms that could be described in a prospectus supplement:

- title of the units;
- aggregate number of units;
- price or prices at which the units will be issued;
- designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- effect of any merger, consolidation, sale or other transfer of our business on the units and the applicable unit agreement;
- name and address of the unit agent;
- information with respect to book-entry procedures;
- any material United States federal income tax considerations; and
- other material terms, including terms relating to transferability, exchange, exercise or amendments of the units.

The provisions described in this section, as well as those described under “Description of Capital Stock,” “Description of Preferred Stock,” “Description of Debt Securities,” and “Description of Warrants,” will apply to each unit and to any common stock, preferred stock, debt security or warrant included in each unit, respectively.

Unless otherwise provided in the applicable prospectus supplement, the unit agreements will be governed by the laws of the State of New York. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date. We will file as an exhibit to a filing with the SEC that is incorporated by reference into this prospectus the forms of the unit agreements containing the terms of the units being offered. The description of units in any prospectus supplement will not necessarily describe all of the terms of the units in detail. You should read the applicable unit agreements for a complete description of all of the terms.

GLOBAL SECURITIES

Unless otherwise indicated in the applicable prospectus supplement, securities other than common stock will be issued in the form of one or more global certificates, or “global securities,” registered in the name of a depository or its nominee. Unless otherwise indicated in the applicable prospectus supplement, the depository will be The Depository Trust Company, commonly referred to as DTC. We expect that DTC’s nominee will be Cede & Co. Accordingly, we expect Cede & Co. to be the initial registered holder of all securities that are issued in global form. No person that acquires a beneficial interest in those securities will be entitled to receive a certificate representing that person’s interest in the securities except as described herein or in the applicable prospectus supplement. Unless and until definitive securities are issued under the limited circumstances described below, all references to actions by holders of securities issued in global form will refer to actions taken by DTC upon instructions from its participants, and all references to payments and notices to holders will refer to payments and notices to DTC or Cede & Co., as the registered holder of these securities.

DTC is a limited-purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the Federal Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code, and a “clearing agency” registered pursuant to the provisions of Section 17A of the Exchange Act. DTC holds securities that DTC participants deposit with DTC. DTC also facilitates the settlement among DTC participants of securities transactions, such as transfers and pledges, in deposited securities through electronic computerized book-entry changes in DTC participants’ accounts, thereby eliminating the need for physical movement of certificates. DTC participants include securities brokers and dealers, banks, trust companies and clearing corporations, and may include other organizations. DTC is a wholly owned subsidiary of the Depository Trust & Clearing Company, or DTCC. DTCC, in turn, is owned by a number of DTC’s participants and subsidiaries of DTCC as well as by other financial companies, including the New York Stock Exchange, Inc. and the Financial Industry Regulatory Authority, Inc. Indirect access to the DTC system also is available to others such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a participant, either directly or indirectly. The rules applicable to DTC and DTC participants are on file with the SEC.

Persons that are not participants or indirect participants but desire to purchase, sell or otherwise transfer ownership of, or other interests in, securities may do so only through participants and indirect participants. Under a book-entry format, holders may experience some delay in their receipt of payments, as such payments will be forwarded by our designated agent to Cede & Co., as nominee for DTC. DTC will forward such payments to its participants, who will then forward them to indirect participants or holders. Holders will not be recognized by the relevant registrar, transfer agent, trustee or warrant agent as registered holders of the securities entitled to the benefits of our Certificate of Incorporation or the applicable indenture, warrant agreement, trust agreement or guarantee. Beneficial owners that are not participants will be permitted to exercise their rights only indirectly through and according to the procedures of participants and, if applicable, indirect participants.

Under the rules, regulations and procedures creating and affecting DTC and its operations as currently in effect, DTC will be required to make book-entry transfers of securities among participants and to receive and transmit payments to participants. DTC rules require participants and indirect participants with which beneficial securities owners have accounts to make book-entry transfers and receive and transmit payments on behalf of their respective account holders.

Because DTC can act only on behalf of participants, who in turn act only on behalf of participants or indirect participants, and certain banks, trust companies and other persons approved by it, the ability of a beneficial owner of securities issued in global form to pledge such securities to persons or entities that do not participate in the DTC system may be limited due to the unavailability of physical certificates for these securities.

We expect DTC to advise us that DTC will take any action permitted to be taken by a registered holder of any securities under our Certificate of Incorporation or the relevant indenture, warrant agreement, trust agreement or guarantee only at the direction of one or more participants to whose accounts with DTC such securities are credited.

Unless otherwise indicated in the applicable prospectus supplement, a global security will be exchangeable for the relevant definitive securities registered in the names of persons other than DTC or its nominee only if:

- DTC notifies us that it is unwilling or unable to continue as depository for that global security or if DTC ceases to be a clearing agency registered under the Exchange Act when DTC is required to be so registered;
- we execute and deliver to the relevant registrar, transfer agent, trustee and/or warrant agent an order complying with the requirements of the applicable indenture, trust agreement or warrant agreement that the global security will be exchangeable for definitive securities in registered form; or
- there has occurred and is continuing a default in the payment of any amount due in respect of the securities or, in the case of debt securities, an event of default or an event that, with the giving of notice or lapse of time, or both, would constitute an event of default with respect to these debt securities.

Any global security that is exchangeable under the preceding sentence will be exchangeable for securities registered in such names as DTC directs.

Upon the occurrence of any event described in the preceding paragraph, DTC is generally required to notify all participants of the availability of definitive securities. Upon DTC surrendering the global security representing the securities and delivery of instructions for re-registration, the registrar, transfer agent, trustee or warrant agent, as the case may be, will reissue the securities as definitive securities, and then such persons will recognize the holders of such definitive securities as registered holders of securities entitled to the benefits of our articles or the relevant indenture trust agreement and/or warrant agreement.

Redemption notices will be sent to Cede & Co. as the registered holder of the global securities. If less than all of a series of securities are being redeemed, DTC will determine the amount of the interest of each direct participant to be redeemed in accordance with its then current procedures.

Except as described above, the global security may not be transferred except as a whole by DTC to a nominee of DTC or by a nominee of DTC to DTC or another nominee of DTC or to a successor depository we appoint. Except as described above, DTC may not sell, assign, transfer or otherwise convey any beneficial interest in a global security evidencing all or part of any securities unless the beneficial interest is in an amount equal to an authorized denomination for these securities.

The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that we believe to be accurate, but we assume no responsibility for the accuracy thereof. None of us, any indenture trustee, any depository, any rights agent, any registrar and transfer agent or any warrant agent, or any agent of any of them, will have any responsibility or liability for any aspect of DTC's or any participant's records relating to, or for payments made on account of, beneficial interests in a global security, or for maintaining, supervising or reviewing any records relating to such beneficial interests.

Secondary trading in notes and debentures of corporate issuers is generally settled in clearing-house or next-day funds. In contrast, beneficial interests in a global security, in some cases, may trade in the DTC's same-day funds settlement system, in which secondary market trading activity in those beneficial interests would be required by DTC to settle in immediately available funds. There is no assurance as to the effect, if any, that settlement in immediately available funds would have on trading activity in such beneficial interests. Also, settlement for purchases of beneficial interests in a global security upon the original issuance of this security may be required to be made in immediately available funds.

PLAN OF DISTRIBUTION

We may offer and sell the securities covered by this prospectus in any one or more of the following ways:

- to or through underwriters, brokers or dealers;
- directly to one or more other purchasers;
- upon the exercise of rights distributed or issued to our security holders;
- through a block trade in which the broker or dealer engaged to handle the block trade will attempt to sell the securities as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- in payment of our and our subsidiaries' outstanding indebtedness;
- through agents on a best-efforts basis; or
- otherwise through a combination of any of the above methods of sale.

We may sell the securities being offered by this prospectus by any other method permitted by law, including sales deemed to be an "at the market" offering as defined in Rule 415(a)(4) of the Securities Act, including without limitation sales made directly on The Nasdaq Capital Market, on any other existing trading market for our securities or to or through a market maker.

In addition, we may enter into option, share lending or other types of transactions that require us to deliver shares of common stock to an underwriter, broker or dealer, who will then resell or transfer the shares of common stock under this prospectus. We may also enter into hedging transactions with respect to our securities. For example, we or the selling stockholders may:

- enter into transactions involving short sales of the shares of common stock by underwriters, brokers or dealers;
- sell shares of common stock short and deliver the shares to close out short positions;
- enter into option or other types of transactions that require us or the selling stockholders, as applicable, to deliver shares of common stock to an underwriter, broker or dealer, who will then resell or transfer the shares of common stock under this prospectus; or
- loan or pledge the shares of common stock to an underwriter, broker or dealer, who may sell the loaned shares or, in the event of default, sell the pledged shares.

We may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by us or borrowed from us to settle those sales or to close out any related open borrowings of stock, and may use securities received from us or selling stockholders in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter identified in the applicable prospectus supplement. In addition, we may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

Each time we sell securities, we will provide a prospectus supplement that will name any underwriter, dealer or agent involved in the offer and sale of the securities. The prospectus supplement will also set forth the terms of the offering, including:

- the purchase price of the securities and the proceeds we will receive from the sale of the securities;
- any underwriting discounts and other items constituting underwriters' compensation;
- any public offering or purchase price and any discounts or commissions allowed or re-allowed or paid to dealers;
- any commissions allowed or paid to agents;
- any other offering expenses;
- any securities exchanges on which the securities may be listed;
- the method of distribution of the securities;
- the terms of any agreement, arrangement or understanding entered into with the underwriters, brokers or dealers; and
- any other information we think is important.

If underwriters or dealers are used in the sale, the securities will be acquired by the underwriters or dealers for their own account. The securities may be sold from time to time by us in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices;
- at varying prices determined at the time of sale; or
- at negotiated prices.

Such sales may be effected:

- in transactions on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
- in transactions in the over-the-counter market;
- in block transactions in which the broker or dealer so engaged will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction, or in crosses, in which the same broker acts as an agent on both sides of the trade;
- through the writing of options; or
- through other types of transactions.

The securities may be offered to the public either through underwriting syndicates represented by one or more managing underwriters or directly by one or more of such firms. Unless otherwise set forth in the prospectus supplement, the obligations of underwriters or dealers to purchase the securities offered will be subject to certain conditions precedent and the underwriters or dealers will be obligated to purchase all the offered securities if any are purchased. Any public offering price and any discount or concession allowed or reallocated or paid by underwriters or dealers to other dealers may be changed from time to time.

The securities may be sold directly by us or through agents designated by us from time to time. Any agent involved in the offer or sale of the securities in respect of which this prospectus is delivered will be named, and any commissions payable by us to such agent will be set forth in, the prospectus supplement. Unless otherwise indicated in the prospectus supplement, any such agent will be acting on a best efforts basis for the period of its appointment.

Offers to purchase the securities offered by this prospectus may be solicited, and sales of the securities may be made by us directly to institutional investors or others, who may be deemed to be underwriters within the meaning of the Securities Act with respect to any resale of the securities. The terms of any offer made in this manner will be included in the prospectus supplement relating to the offer.

If indicated in the applicable prospectus supplement, underwriters, dealers or agents will be authorized to solicit offers by certain institutional investors to purchase securities from us pursuant to contracts providing for payment and delivery at a future date. Institutional investors with which these contracts may be made include, among others:

- commercial and savings banks;
- insurance companies;
- pension funds;
- investment companies; and
- educational and charitable institutions.

In all cases, these purchasers must be approved by us. Unless otherwise set forth in the applicable prospectus supplement, the obligations of any purchaser under any of these contracts will not be subject to any conditions except that (a) the purchase of the securities must not at the time of delivery be prohibited under the laws of any jurisdiction to which that purchaser is subject, and (b) if the securities are also being sold to underwriters, we must have sold to these underwriters the securities not subject to delayed delivery. Underwriters and other agents will not have any responsibility in respect of the validity or performance of these contracts.

Some of the underwriters, dealers or agents used by us in any offering of securities under this prospectus may be customers of, engage in transactions with, and perform services for us or affiliates of ours in the ordinary course of business. Underwriters, dealers, agents and other persons may be entitled under agreements which may be entered into with us to indemnification against and contribution toward certain civil liabilities, including liabilities under the Securities Act, and to be reimbursed by us for certain expenses.

Subject to any restrictions relating to debt securities in bearer form, any securities initially sold outside the United States may be resold in the United States through underwriters, dealers or otherwise.

Any underwriters to which offered securities are sold by us for public offering and sale may make a market in such securities, but those underwriters will not be obligated to do so and may discontinue any market making at any time.

The anticipated date of delivery of the securities offered by this prospectus will be described in the applicable prospectus supplement relating to the offering.

In compliance with the guidelines of the Financial Industry Regulatory Authority, or FINRA, the aggregate maximum discount, commission, agency fees or other items constituting underwriting compensation to be received by any FINRA member or independent broker-dealer will not exceed 8% of the offering proceeds from any offering pursuant to this prospectus and any applicable prospectus supplement.

No FINRA member may participate in any offering of securities made under this prospectus if such member has a conflict of interest under FINRA Rule 5121, including if 5% or more of the net proceeds, not including underwriting compensation, of any offering of securities made under this prospectus will be received by a FINRA member participating in the offering or affiliates or associated persons of such FINRA members, unless a qualified independent underwriter has participated in the offering or the offering otherwise complies with FINRA Rule 5121.

To comply with the securities laws of some states, if applicable, the securities may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the securities may not be sold unless they have been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, the validity of the securities being offered by this prospectus will be passed upon by Troutman Sanders LLP, Irvine, California.

EXPERTS

The consolidated financial statements of Pacific Ethanol as of and for the years ended December 31, 2019 and 2018 appearing in Pacific Ethanol's Annual Report on Form 10-K for the year ended December 31, 2019 have been audited by RSM US LLP, an independent registered public accounting firm, as stated in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act, and the rules and regulations promulgated under the Securities Act, with respect to the securities offered under this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all of the information contained in the registration statement and the exhibits and schedules to the registration statement. Many of the contracts and documents described in this prospectus are filed as exhibits to the registration statements and you may review the full text of these contracts and documents by referring to these exhibits.

For further information with respect to us and the securities offered under this prospectus, reference is made to the registration statement and its exhibits and schedules. We file reports, including annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K with the SEC.

The SEC maintains an Internet web site that contains reports, proxy and information statements and other information regarding issuers, including Pacific Ethanol, that file electronically with the SEC. The SEC's Internet website address is <http://www.sec.gov>. Our Internet website address is www.pacificethanol.com.

We do not anticipate that we will send an annual report to our stockholders until and unless we are required to do so by the rules of the SEC.

All trademarks or trade names referred to in this prospectus are the property of their respective owners.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” the information we file with the SEC. This means that we can disclose important information to you by referring you to another filed document. Any information referred to in this way is considered part of this prospectus from the date we file that document. Any reports filed by us with the SEC after the date of this prospectus and before the date that the offering of the securities by means of this prospectus is terminated will automatically update and, where applicable, supersede any information contained in this prospectus or incorporated by reference in this prospectus. Accordingly, we incorporate by reference the following documents or information filed with the SEC:

- Our Quarterly Report on [Form 10-Q](#) for the fiscal quarter ended March 31, 2020, which we filed with the SEC on May 14, 2020;
- Our Current Reports on Form 8-K filed with the SEC on [January 22, 2020](#), [March 5, 2020](#), [April 21, 2020](#), [April 23, 2020](#), [May 11, 2020](#) and [May 29, 2020](#);
- Our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2019, which we filed with the SEC on March 30, 2020;
- Our Amended Annual Report on [Form 10-K/A](#) for the fiscal year ended December 31, 2019, which we filed with the SEC on April 29, 2020;
- All documents filed by us in accordance with Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after April 14, 2017 and prior to effectiveness of the registration statement containing this prospectus, other than documents or information deemed furnished and not filed in accordance with SEC rules;
- The description of our capital stock contained in our Current Report on [Form 8-K](#) filed with the SEC on April 13, 2017; and
- All documents filed by us in accordance with Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act on or after the date of this prospectus and before the termination of an offering under this prospectus, other than documents or information deemed furnished and not filed in accordance with SEC rules.

We will provide a copy of the documents we incorporate by reference, at no cost, to any person who received this prospectus. To request a copy of any or all of these documents, you should write or telephone us at: Investor Relations, Pacific Ethanol, Inc., 400 Capitol Mall, Suite 2060, Sacramento, California 95814, (916) 403-2123. In addition, each document incorporated by reference is readily accessible on our website at www.pacificethanol.com.

\$74,941,768.51



PACIFIC ETHANOL, INC.

5,075,000 Shares of Common Stock
Pre-funded Warrants to Purchase Up to 3,825,493 Shares of Common Stock
3,825,493 Shares of Common Stock Underlying the Pre-funded Warrants

PROSPECTUS

Sole Book-running Manager

Guggenheim Securities

Co-Managers

Craig-Hallum Capital Group

H.C. Wainwright & Co.

The date of this prospectus supplement is October 26, 2020.
