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## Pacific Ethanol Enhances Production Efficiencies at Madera, CA Plant With Whitefox's Technology

SACRAMENTO, Calif., Feb. 11, 2016 (GLOBE NEWSWIRE) -- **Pacific Ethanol, Inc.** (NASDAQ:PEIX), a leading producer and marketer of low-carbon renewable fuels in the United States, and Whitefox Technologies Limited, a clean fuel membrane specialist, have entered into a technology license and purchase agreement for an industrial scale membrane system that separates water from ethanol in the plant's distillation system. Pacific Ethanol expects commercial operations using the new technology in the third quarter of 2016.

Neil Koehler, Pacific Ethanol's president and CEO stated: "We are pleased to be a first mover with an innovative technology that integrates well into our existing system. Whitefox's technology is designed to increase operating efficiencies, lower production costs, and reduce the carbon intensity of ethanol produced at our Madera facility."

Whitefox's CEO Gillian Harrison stated: "After an extensive trial period, our Whitefox ICE™ Solution was shown to remove bottlenecks and improve ethanol production efficiency at the Pacific Ethanol Madera plant. We are pleased Pacific Ethanol chose our membrane technology to provide them with a key competitive advantage in the industry and we look forward to an ongoing collaborative relationship."

In May 2015, Pacific Ethanol and Whitefox announced the delivery of a stand-alone, container-based, membrane system to Pacific Ethanol's Madera, CA plant. Since that time, the technology underwent a trial period where it was determined to reduce the consumption of water and energy, and reduce emissions in the production of ethanol while increasing product output.

### **About Whitefox**

Whitefox is a specialist-engineering firm that delivers innovative membrane solutions for different solvent applications and chemical reactions. The company has over 10 years' industrial experience, focused on providing the most energy and water-efficient separation systems worldwide. Projects range from integrating chemical reactors and recycling waste ethanol in pharmaceutical plants to producing high-quality potable and biofuel grade ethanol. For more information, please visit [www.whitefox.com](http://www.whitefox.com)

### **About Pacific Ethanol, Inc.**

Pacific Ethanol, Inc. (PEIX) is the leading producer and marketer of low-carbon renewable fuels in the Western United States. With the addition of four Midwestern ethanol plants in July 2015, Pacific Ethanol more than doubled the scale of its operations, entered new markets, and expanded its mission to be the industry leader in the production and marketing of low carbon renewable fuels. Pacific Ethanol owns and operates eight ethanol production

facilities, four in the Western states of California, Oregon and Idaho, and four in the Midwestern states of Illinois and Nebraska. The plants have a combined production capacity of 515 million gallons per year, produce over one million tons per year of ethanol co-products such as wet and dry distillers grains, wet and dry corn gluten feed, condensed distillers solubles, corn gluten meal, corn germ, corn oil, distillers yeast and CO<sub>2</sub>. Pacific Ethanol markets and distributes ethanol and co-products domestically and internationally. Pacific Ethanol's subsidiary, Kinergy Marketing LLC, markets all ethanol for the Pacific Ethanol plants as well as for third parties, with over 800 million gallons of ethanol marketed annually based on historical volumes. Pacific Ethanol's subsidiary, Pacific Ag. Products LLC, markets wet and dry distillers grains. For more information, please visit [www.pacificethanol.com](http://www.pacificethanol.com).

### **Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995**

Statements and information contained in this communication that refer to or include Pacific Ethanol's estimated or anticipated future results or other non-historical expressions of fact are forward-looking statements that reflect Pacific Ethanol's current perspective of existing trends and information as of the date of the communication. Forward looking statements generally will be accompanied by words such as "anticipate," "believe," "plan," "could," "should," "estimate," "expect," "forecast," "outlook," "guidance," "intend," "may," "might," "will," "possible," "potential," "predict," "project," or other similar words, phrases or expressions. Such forward-looking statements include, but are not limited to, the timing of commercial operations using Whitefox's technology; the effects of Whitefox's technology, including its effect on operating efficiencies, production costs, emissions, consumption of water and energy, the carbon intensity of ethanol produced by Pacific Ethanol, and product output; and Pacific Ethanol's other plans, objectives, expectations and intentions. It is important to note that Pacific Ethanol's plans, objectives, expectations and intentions are not predictions of actual performance. Actual results may differ materially from Pacific Ethanol's current expectations depending upon a number of factors affecting Pacific Ethanol's business and risks associated with new technologies. These factors include, among others, the inherent uncertainty associated with new technologies and the implementation and timing of implementation of new technologies, financial and other projections, and the ability to attain the anticipated benefits of new technologies and other events, factors and risks previously and from time to time disclosed in Pacific Ethanol's filings with the Securities and Exchange Commission including, specifically, those factors set forth in the "Risk Factors" section contained in the Company's Form 10-Q filed with the Securities and Exchange Commission on November 6, 2015.

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