

**Pacific Ethanol, Inc.**

Corporate HQ: Sacramento, California

Proposed Facility Location: Boardman, Oregon

Description: The project will design, construct, and operate a feedstock flexible demonstration facility producing cellulosic ethanol and that is co-located with an existing corn ethanol plant.

CEO or Equivalent: Neil Koehler, CEO

Participants: BioGasol, ApS; and U.S. Department of Energy's (DOE), JBEI - Joint BioEnergy Institute, one of three DOE Bioenergy Research Centers --

Production: Capacity of 2.7 million gallons of ethanol per year

Technology and Feedstocks: Wheat straw, corn stover and poplar residuals

BioGasol proprietary conversion technologies consist of the following process steps: Pre-treatment, Hydrolysis, Fermentation, and Anaerobic digestion of process water and recirculation.

Especially novel is the highly efficient and cost effective pre-treatment process for the opening of the lignocellulosic biomasses and a unique C5-sugars fermentation that allows conversion of nearly all carbohydrates available.

These carbohydrates in the feedstock are converted to value-added products including ethanol, and hydrogen while the unused fraction is converted into methane. Approximately 15 % of the material will be separated out as a solid fuel, which can be used for combustion.

State of Readiness: The BioGasol process has been validated in a pilot facility operating for nearly two years in Denmark.

BioGasol is also building a demonstration facility in Denmark, the Born BioFuel ("BBF") project should be operational in late 2009.

Project Timeline: Construction Start: late 2009  
Estimated Performance Test: 4<sup>th</sup> Quarter CY 2010  
Commercial Scale Expansion: 2012.

Link to Recipient: [www.pacificethanol.net](http://www.pacificethanol.net)