

# Praxair Signs Long-Term Agreement to Supply Fulcrum's Sierra BioFuels Plant in Nevada

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DANBURY, Conn., November 12, 2018 – Praxair, Inc., a wholly-owned subsidiary of Linde plc (NYSE:LIN; FWB:LIN) today announced it has signed a long-term agreement to supply oxygen to Fulcrum BioEnergy's Sierra BioFuels Plant in Storey County, Nevada. Praxair will build two vacuum pressure swing adsorption (VPSA) plants at the facility, which is under construction and expected to start up operations in early 2020.

"Praxair is proud to partner with Fulcrum at its Sierra waste to fuels plant in Nevada," said Armando Botello, West Region vice president of Praxair's U.S. industrial gases business. "This project will use our Hot Oxygen Burner (HOB) and VPSA technologies to deliver an innovative and reliable solution for our customer."

The Sierra BioFuels Plant will employ Praxair's proprietary HOB technology for increasing syngas yield from the gasification process. HOB technology enables rapid partial oxidation of remaining hydrocarbons and tars in the produced syngas without the need for a catalyst or steam injection. The HOB technology, coupled with gasification in Fulcrum's process, will help transform municipal solid waste into clean, high-quality syngas, which will then be converted to low-carbon transportation fuels such as renewable crude, jet fuel and diesel.

"Praxair is a leader in VPSA technology and we look forward to working with them on our innovative waste to fuels plant," said Lee Rich, vice president of engineering and operations for Fulcrum. "From design to plant operation, Praxair has a strong record of providing safe, reliable and efficient service."

Praxair was the first to develop VPSA technology and is a leader in VPSA applications for oxygen production. For more information on HOB gasification, please visit [www.praxair.com/energy](http://www.praxair.com/energy).

## About Praxair

Praxair, Inc. is a leading industrial gas company in North and South America and one of the largest worldwide. With market capitalization of approximately \$40 billion and 2017 sales of \$11 billion, the company employs over 26,000 people globally and has been named to the Dow Jones® World Sustainability Index for 16 consecutive years. Praxair produces, sells and distributes atmospheric, process and specialty gases, and high-performance surface coatings. Our products, services and technologies are *making our planet more productive* by bringing efficiency and environmental benefits to a wide variety of industries, including aerospace, chemicals, food and beverage, electronics, energy, healthcare, manufacturing, primary metals and many others. For more information about the company, please visit our website at [www.praxair.com](http://www.praxair.com).

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## Contact

### MEDIA CONTACT:

**Lisa Esneault**

Email: [lisa\\_esneault@praxair.com](mailto:lisa_esneault@praxair.com)

Phone: 1-203-837-2448

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### INVESTOR RELATIONS CONTACT:

**Juan Pelaez**

Email: [juan\\_pelaez@praxair.com](mailto:juan_pelaez@praxair.com)

Phone: 1-203-837-2213

## Contact Us

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1-800-PRAXAIR

(1-800-772-9247)

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