The Molecular Gate™ PSA unit

The largest USA wastewater treatment plant (WWTP) digester gas purifier is operating for the City of San Antonio. Guild Associates, Inc provided the system to upgrade 1,300 standard cubic feet per minute (SCFM) of raw digester gas from 60 percent methane to pipeline quality gas in a single step.

Guild equipment was provided to Ameresco, who owns as well as designed, engineered, permitted, constructed, operates, manages and maintains the gas conditioning and distribution facility and the pipelines necessary to transfer and sell the gas to commercial natural gas pipelines. “This is the culmination of a tremendous amount of hard work and ingenuity, along with a great partnership with SAWS, in order to implement this groundbreaking ‘renewable resource’ project,” said Michel T. Bakas, Ameresco’s Vice President of Renewable Energy. “This is an exciting project for the partners.”

To date, Guild has provided more than 30 PSA systems to upgrade a wide variety of feed streams, including digester gases, landfill gas, contaminated natural gas and coal bed gases. The gas cleanup for SAWS is built upon this experience base along with improvements that remove H2S and siloxanes in a single step when the water vapor and CO2 impurities are removed from the digester gases.

The system removes the water to the pipeline specifications of less than 7 pounds per million standard cubic feet (MMSCF), removes the H2S to a typical requirement of 4 parts per million (ppm), removes the siloxanes to parts per billion (ppb) levels, and removes the carbon dioxide to less than 2 percent, as required by the pipeline specification.

About Ameresco
Ameresco, Inc. is the largest independent comprehensive energy solutions provider in North America. Ameresco uses innovative strategies, systems, and technologies for renewable and sustainable energy generation and infrastructure renewal, thereby reducing operating expenses, increasing energy reliability and enhancing the environment. Please visit ameresco.com.

About Guild Associates
Guild Associates is the exclusive USA licensee of the Molecular Gate technology originally developed by Engelhard Corporation (now part of the BASF Group). Guild provides adsorption and catalyst systems to a variety of markets as well as shop fabricated engineered systems including Molecular Gate systems.

Contact
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