

Des Moines Wastewater Reclamation Authority | Des Moines, Iowa



Biogas Renewable Energy Consulting

The Des Moines Metropolitan Wastewater Reclamation Authority (WRA) treats 63,000,000 gallons of wastewater and produces 1,400 MMBtu per day of renewable natural gas. WRA is moving toward upgrading the biogas for pipeline injection and using resulting revenue through the sale of natural gas and energy credits to offset capital and operating costs at the facility. EcoEngineers was tasked with the following:

- **Assist** WRA with financial pro forma analysis including revenue sensitivity analysis.
- **Review** feedstock mix and determine eligibility to generate cellulosic (D3) versus advanced (D5) biofuel Renewable Identification Numbers (RINs) under the Renewable Fuel Standard (RFS). Develop work processes and protocol to coprocess variable feedstock as needed.
- **Train and educate** around the Renewable Fuel Standard (RFS), California's Low Carbon Fuel Standard (LCFS), voluntary markets, financial risk analysis, and ongoing compliance obligations.
- **Register** the project with the U.S. Environmental Protection Agency under the RFS to generate Renewable Identification Numbers (RINs) and the California Air Resources Board under the LCFS to generate LCFS credits.
- **Review** records management practices at project and recommend best practices to fulfill compliance expectations under RFS and LCFS.
- **Assist** WRA with offtake options to find end users for use of the renewable natural gas as transportation fuel. Assist WRA with RIN sales to obligated parties.

Key Performance

- Be WRA's renewable energy consultant throughout the project — from concept, through design, construction, and startup and ongoing compliance with RFS and LCFS.

Key Results

- Project is in progress; startup is scheduled for December 2019.
- Client successfully received a long-term off-take price that meets return expectations of the finance committee.