



Landfill Gas Opportunities

Policy and Economic Drivers

The Federal Renewable Fuel Standard (RFS) has determined that landfill gas (LFG) projects are rewarded with an Advanced Cellulosic designation which allows for the award of a D3 RIN credit. D3 RINs are the most lucrative of all credits in the RFS. These credits are trading at values that make them worth many times the value of the actual gas itself. D3 RINs are trading in mid 2022 at over \$3.00 per credit which equates to a value of over \$35.00 per MMBtu of gas, which is near record high. RNG projects can dramatically enhance landfill owner revenues to diversify revenue streams. Other policy drivers include participating in the Low Carbon Fuel Standards of a variety of states like California and Washington.

Technical Challenges

It is often challenging for landfills to clean and upgrade landfill gas to RNG specifications due to the complex mix of components in the raw gas. Components like Oxygen, Nitrogen, Siloxanes, Hydrogen Sulfide, Carbon Dioxide, VOC's, and NMOCs (non-methane organic compounds) are found in the gas, in addition to the gas being saturated with water vapor. Each of these components need to be handled and treated differently. Therefore, a typical LFG Project can include many different process operations to create gas that complies with the local gas utilities' gas specifications. At times these gas specifications, or Tariffs, can be onerous.

Montrose Value Proposition

Montrose Environmental has vast experience in the processing and upgrading of landfill gas. We have engineered and installed some of the most advanced RNG projects in the US. A key to our offering is our ability to evaluate processing options to develop an optimized flow configuration.



Montrose Designed Landfill Gas RNG System at Klickitat PUD in WA – 8000 scfm

Each unit operation, such as PSA, TSA, Oxidation Catalyst, Molecular Sieve, Selexol, cryogenic processing, or membrane upgrading can have its own features, benefits, and challenges that span technical, operational, and economic considerations in conjunction with all the needed compression and drying steps required.

One key benefit is that we are among the best in the nation at system integration of complex systems. Getting unit operations to properly communicate with each other through advanced SCADA systems is something our dedicated gas processing team excels at.

Montrose acts as a trusted advisor, engineer, and constructor. We can also serve as an Engineer, Procure, Construct (EPC) firm which offers owners the ability to have a single source of responsibility for performance, cost, and project schedule.

Path Forward

In this brisk RNG market, owners can be challenged to get RNG into their pipeline on-time and on-budget. Montrose is well positioned to help owners through all phases of project development, design and construction.



CONTACT

Learn more about us and what the RNG Solutions team can do for you!



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