INSIGHT

How federal regulations can help drive revenue

Sioux City, Iowa recently made national headlines with a plan to turn organic waste into marketable Renewable Natural Gas (RNG) through a wastewater treatment plant improvement project. The project, expected to pay for itself over time, will produce almost 2.1 million gallons of gasoline offset annually. This RNG will be marketed to generate revenue.

Many other cities are identifying this as a lucrative market opportunity. It disposes of organic waste through the anaerobic digestion process to create purified RNG, which can then be marketed for vehicle fuel and converted to revenue.

How renewable natural gas is marketed

To be ready for market, raw RNG has a few constituents that need to be removed — carbon dioxide, nitrogen, moisture, hydrogen sulfide and siloxanes. Primary purification options include pressure swing adsorption, membrane separation or scrubbing with water or amines. For the purified RNG to be distributed, it is important to factor in compression capabilities and pipeline

connectivity.

In Sioux City, Bartlett & West worked to navigate regulations while maximizing the efficiency and effectiveness of the new infrastructure improvements. The city also partnered with Bartlett & West to find grant funding and collaborate with local industry on solutions for high-strength waste disposal.

RNG has been utilized within wastewater treatment plants for decades. However, the value of RNG and the associated environmental credits has risen exponentially in recent years.

Vehicle fuel regulations are driving the market

The Renewable Fuel Standard (RFS) launched in 2007 to promote the development of renewable fuel markets such as corn ethanol and soy biodiesel. The RFS mandates that increasing percentages of the vehicle fuels used in the United States be from renewable sources. The RFS was modified in 2012 to include other biofuels such as RNG to spur additional biofuel growth.

These renewable fuels are given a renewable identification number (RIN), which is used to identify and track biofuel. Obligated parties under the RFS, such as petroleum fuel producers and importers, are required to either blend in biofuels or purchase RINs in order to comply with the mandate.

How to create revenue

The natural gas pipeline network stretches throughout the United States. By feeding purified RNG into this network, organizations can receive a share of eventual proceeds based on RIN purchases. In addition, the states of California and Oregon have significant demand for purified RNG because of the state-run Low Carbon Fuel Standard program.

The state of California extended the Low Carbon Fuel Standard program by recently passing legislation to significantly reduce greenhouse gas emissions by the year 2030. The plan specifically targets a 50-percent reduction of petroleum use in vehicles, which is significant given the prominence of California's economy relative to the global economy.

RFS legislation creates a significant market opportunity over the next five to 10 years — one that enjoys bipartisan legislative support. As a national leader in RNG conversion, Bartlett & West offers individual consultations to advance communities and industry toward capitalizing on this thriving market.