anessa BIOGAS SOFTWARE

Use Case – AD•A No.04

EVALUATION OF PROJECT ASSUMPTIONS WITH LEYLINE RENEWABLE CAPITAL

Dairy Manure RNG Project in Wyoming, USA

AT A GLANCE

During their evaluation of an anaerobic digestion opportunity based in Wyoming, the Leyline team had to validate different assumptions from various information streams. The team wanted to understand if the assumptions were within a baseline and how variability could affect the project's bottom line.

Evaluate the impact of

Assumptions in Mass Energy Balance Sheets

Conducted a project risk assessment accounting for

Changes in BMP and Herd Size

"Being able to do Sensitivity Analysis, analyze Greenhouse Gas emissions, and other features we weren't previously considering, such as digester sizing, and volume of effluent coming from the digester we have been very grateful for."

ALLAN ODUOR
Development Analyst @
Leyline Renewable Capital

BACKGROUND

Leyline Renewable Capital provides flexible capital solutions to further sustainable industries. As former developers, the Leyline Renewable Capital team knows the challenges in the project development cycle and has the expertise and capital to help.

Leyline has invested in more than 40 projects that are generating a substantial positive impact on our environment and economy.

CHALLENGE FACED

Leyline Renewable Capital was presented with a Wyoming-based dairy manure project to consider for investment. Various stakeholders provided Leyline with project information, including assumptions of feedstock availability and quality.
To gain a full scope of the long-term viability of the project, these assumptions had to be evaluated and validated, but they lacked a reliable process to screen this information.

WHY ANESSA?

Leyline Renewable Capital sought out anessa to review and validate the assumptions provided by simulating its effect's on the project's financial and technical performance in both the short and long term. Using anessa AD•A, the team was able to assess the parameters involved and identify discrepancies that required immediate attention.

THE RESULTS

The anessa Team helped stress test the project and validated the received documents through our Technical Services offering. Discrepancies were identified through a risk assessment of the project's herd size that highlighted an overestimation in the mass balance sheets from one data stream.
To provide the Leyline team with a reliable process to validate BMP assumptions, the anessa team used the heating value of the biogas and the volatile solid destruction to calculate the biomethane potential. This calculation was stress tested with a comparison to anessa's extensive feedstock database and the values proved to be in an acceptable range.

KEY FUNCTIONALITY

anessa's software solutions can be accompanied by additional Technical Services. Our team of biogas experts become an available resource to provide anessa users quality assurance checks, validation of assumptions, and an unbiased assessment throughout the operation and development of your biogas opportunities.