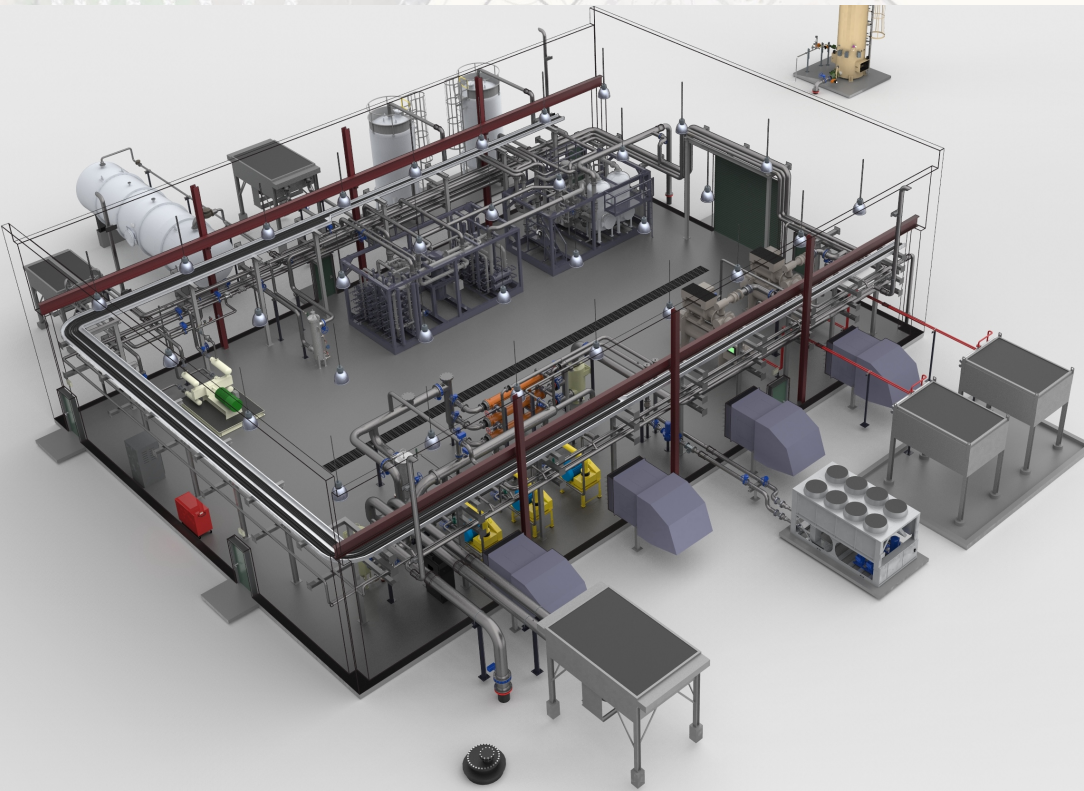




# CASE STUDY – EAGLE POINT LANDFILL RENEWABLE NATURAL GAS FACILITY DESIGN

ESI provided the full suite of engineering services, including mechanical, electrical, process, and controls design for the Eagle Point Landfill High-BTU Facility. The new facility includes process equipment to handle 6,000 scfm of raw landfill gas with a final supply volume of 3,000 scfm landfill gas to renewable natural gas (RNG) facility in Ball Ground, Georgia. ESI provided the complete facility design in 3D while also delivering a comprehensive set of construction drawings.



## PROJECT OVERVIEW

### LOCATION:

Eagle Point Landfill  
Ball Ground, Georgia

### OWNER:

Aria Energy

### DESIGN COMPLETION:

2018

### EQUIPMENT:

Air Liquide Membranes & Pretreatment  
Guild PSA System & Dehydration Unit  
Glauber & Sullivan Compression

### CAPACITY:

6,000 scfm Landfill Gas Input  
3,000 scfm RNG Output

### SCOPE OF WORK:

- Process Engineering
- Mechanical Engineering
- Electrical Engineering
- Controls Engineering Assistance
- Advanced 3D Facility Design
- Spool-by-Spool Piping Drawings
- Point-to-Point Cable Drawings
- Construction Permit Assistance
- Process Hazards Analysis

## UNIQUE CHALLENGE

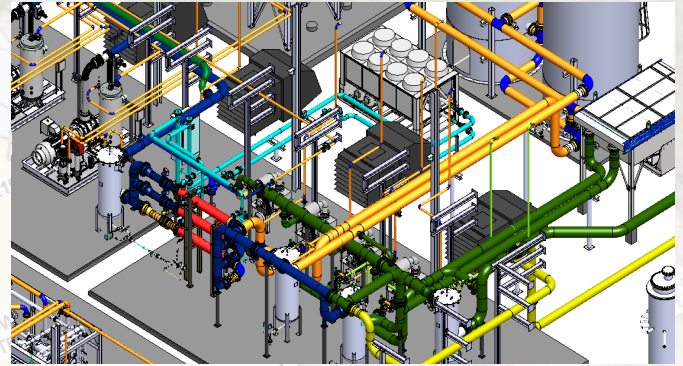
The Eagle Point Landfill project utilizes ESI's design expertise for an RNG project requiring seamless integration of multiple technologies supplied by multiple vendors to produce a cohesive operating facility. To streamline the integration of the facility, ESI's detailed design services went above and beyond a standard MEP drawing package to include spool-by-spool pipe fabrication drawings, point-to-point cable termination drawings, and thorough pipe support drawings. ESI is proud to work with clients like Aria, who appreciate the value of a comprehensive and detailed design.

## A Track Record of Successful Biogas Projects

Eagle Point Landfill RNG Facility marks the fifth full-service RNG project completion between ESI and ARIA Energy. Prior to this project, ESI successfully completed four RNG projects with ARIA, with the Southeast Oklahoma City Facility being the most recent. As with each prior project, ESI and Aria have taken the safety and performance to the industry's cutting edge.

As one of the largest developers of renewable natural gas projects in the United States, Aria relies on ESI to play a key role in the engineering and integration of their facilities. ESI's technical expertise in the separation of biogas includes experience with membranes, PSA, TSA, amine, water wash, biological scavengers, bulk media systems, and more. As a true third-party engineer, ESI believes that a technology must meet the needs of a project, not the other way around. In order to ensure each RNG project is built with the most appropriate system, ESI maintains relationships with all the major technology suppliers and is committed to providing clients with the best RNG solution for their project.

Contact ESI today to talk about your biogas needs!



Advanced plant design capabilities help streamline projects.



MECHANICAL FABRICATION



Experience integrating a wide variety of technologies including membrane and PSA systems.



Eagle Point Landfill, Ball Ground, Georgia. We know what it takes to make a RNG facility perform well.



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ESI provides customers the peace of mind that comes from experienced professionals skilled at completing turn-key RNG solutions.  
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