



CASE STUDY - Foothills Landfill & Upper Piedmont Landfill Renewable Natural Gas Facilities

As a sole provider, ESI oversaw all facets of these renewable natural gas projects from initial development through engineering, equipment procurement, permitting, construction, controls and SCADA integration, and commencement of operations, along with the continuous day-to-day operations and management of these facilities. ESI's exceptional capability to provide smooth integration of various technologies (mechanical, electrical, and controls) offered by multiple equipment vendors allowed us to create a cohesive operating facility designed to enhance facility safety, performance, and uptime.



PROJECT OVERVIEW

LOCATION:

Foothills Landfill - Lenoir, North Carolina
Upper Piedmont Landfill -
Rougemont, North Carolina

OWNER:

Upper Piedmont Renewables LLC & Foothills
Renewables LLC

COMPLETION:

2022

CAPACITY:

3,000 SCFM Raw LFG (Piedmont)
3,000 SCFM Raw LFG (Foothills)

SCOPE OF WORK:

- Due Diligence Assistance
- Pipeline Technical Coordination
- Electric Utility Technical Coordination
- Environmental Permit Review & Analysis
- Basis of Design
 - Process Flow/Mass Balance
 - General Arrangement Layout
 - Site Design
 - Major Equipment Coordination/Selection
- Electric Single-Line w/ Load Schedules
- Preliminary Permit Documentation
- Landfill Gas Reserve Analysis
- Detailed Engineering Design
 - Process
 - Mechanical
 - Electrical
 - Controls & SCADA
 - Civil
 - Structural
- Procurement of Major Equipment
- Construction Management
- Operations and Maintenance Contract

UNIQUE CHALLENGE

ESI maintained clear communication on project timelines while managing procurement challenges due to industry wide supply chain issues.

- Worked closely with developer partner to meet project schedule and budget objectives
- Designed for operability - leveraged 25 years' experience in turnkey EPC projects & in-house fabrication for balance of plant equipment fabrication to minimize supply chain challenges and maintain project critical path

CLIENT FOCUSED PROFESSIONALS

Upper Piedmont and Foothills RNG Facilities showcase how ESI can provide the full suite of Development, Engineering, Procurement, Construction, Operations & Maintenance (DEPCOM) services. ESI maintains a standard of excellence in safety and service while staying on the cutting edge of performance.

Adapting to a client's needs has a monumental impact on cohesion and project success. ESI's flexibility and experience allows for success in all project structures ranging from the development stages of a project to managing the operations and maintenance of an existing facility to everything in between.

Contact ESI today to talk about your BioGas needs!



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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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