



BIOGAS & BIOMETHANE SOLUTIONS FOR LANDFILLS

Koch Engineered Solutions, LLC (KES) can deliver proprietary equipment, engineering, procurement and construction for a broad range of biogas and biomethane applications.



Equipment & Process

► **John Zink Hamworthy Combustion**

- Full package systems
- Specialty biogas flare systems
- Gas cooling & compression packages
- Amine systems (CO₂/H₂S removal)
- Glycol dehydration systems (H₂O removal)

► **Koch Separation Solutions**

BgPurTM hydrogen sulfide removal product



Installation & Construction

► **Koch Specialty Plant Services**

World-class installation and construction services

Project management, lump sum turnkey engineering, procurement and construction can deliver a complete solution



Commercialization

► **Finance for Off-take Agreements**

Through Koch Minerals & Trading (KM&T), a Koch affiliate company, we have the opportunity to finance and invest in projects

► **Complete trade management of the carbon**

Independent of financing, KM&T also offers additional trade management of the Carbon Credit and RINs for end user

Partner of Choice

GLOBAL SCALE

KES is an affiliate of Koch Industries that has \$100+ billion¹ in revenues, global presence and investment grade credit

¹ As estimated by Forbes

DECISIVE ACTION

Unrival ability to marshal resources to move decisively and with certainty when the right opportunities present themselves

PRIVATE

KES' status as a private company and management philosophy allows partners to focus on capturing long-term opportunities

MUTUAL BENEFIT

True partnership mentality. Expectation that KES will work to make partnerships as successful as possible

KOCH LABS

Experts: Engage KES' internal subject matter experts to help better understand market and customer opportunities as well as solving technical challenges

Develop: Use KES and Koch-affiliate facilities and businesses as a test bed for product development and proof of concept, allowing for quicker time to market and product design cycles

Engage: Opportunity to engage KES and Koch affiliates as a partner, customer and supplier

KES One Source Solution

for Key Gas Treatment & Purification Equipment and World-Class Installation

Equipment + Turnkey Installation + EPC Services = **RNG PLANT**

**JOHN ZINK
HAMWORTHY
COMBUSTION**

Specialty biogas flare systems • Gas cooling & compression packages • Amine systems (CO₂/H₂S removal)
Glycol dehydration systems (H₂O removal)

**KOCH SEPARATION
SOLUTIONS**

Gas-to-liquid contactors (H₂S and PM removal)

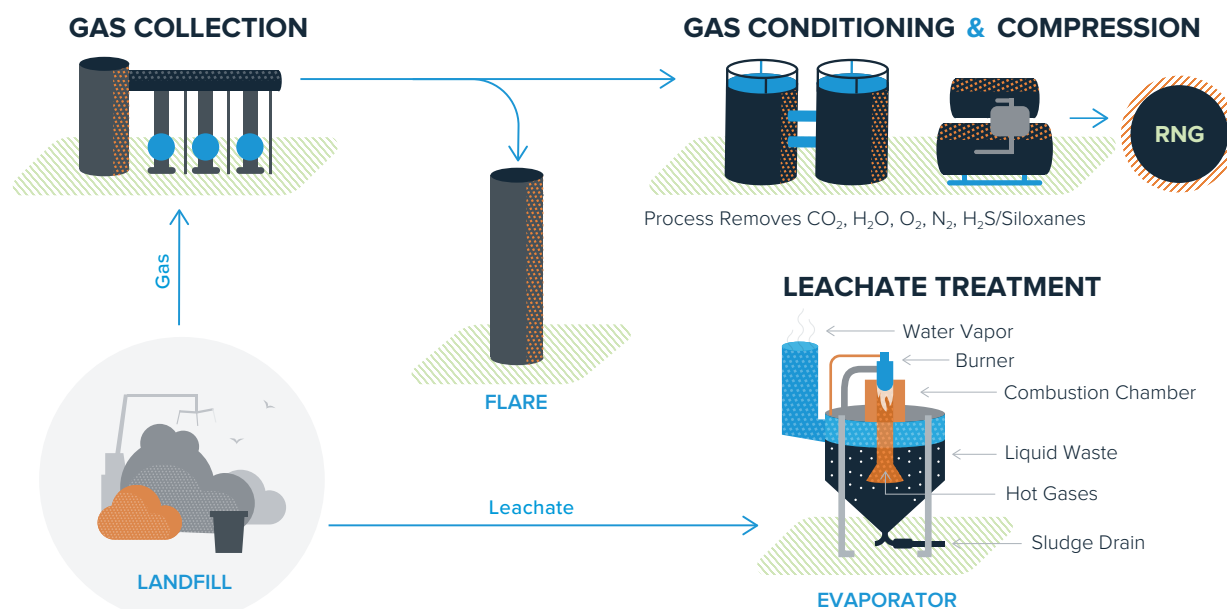
KOCH GLITSCH

Mass transfer • Mist elimination • Phase separation equipment

**KOCH SPECIALTY
PLANT SERVICES**

World-class installation and construction services • Unique product expertise from professionals

LEACHATE TREATMENT, BIOGAS TREATMENT & END USES


**Identify Potential
RNG Source**

- Municipal solid waste
- Sewage
- Yard & crop wastes
- Food wastes
- Agriculture (manure)

**Waste Conversion
to Biogas**
Non-Pipeline Spec. Gas

- 40-60% Methane
- 30-60% CO₂
- 2-5% Nitrogen
- Impurities
- Other gases

**Conditioning &
Compression RNG**
Pipeline Spec. Gas

- RNG = 96-98% CH₄
- Designed for your pipeline quality specs

**Off-take &
Utilization of RNG**

- RNG is a drop-in replacement for traditional natural gas