

Raw Biogas to Compressed Biogas (CBG): Turning Low Value Gas to High Value CBG



Praj's RenGas™ technology upgrades raw biogas with methane content 50-55%, into high-purity Compressed Biogas (CBG) with methane content 96%-98%, meeting stringent CGD, automotive and industrial-grade specifications. The system is designed for high efficiency, low operating costs, low methane loss and consistent performance across varied feedstocks.

RenGas™ enables industries and project developers worldwide to produce clean, renewable fuel from local biomass resources. It supports energy transition goals, reduces greenhouse gas emissions, and creates value from organic waste—making it ideal for sustainable fuel

RenGas™ – Praj's Cutting-Edge Solution for High-Purity CBG

RenGas™ is Praj's trademark biogas upgrading technology that transforms raw biogas into 96%- 98% pure methane. It is compact, modular, and optimized for Indian conditions.



High methane recovery



Low lifecycle costs



Automated and skid-mounted



Proven across varied raw biogas

Step-by-Step Purification

1. Raw Biogas Generation

Anaerobic digestion of feedstock generates biogas containing methane and impurities.

2. Upgrading Sequence

H₂S Removal – Regenerative chemical scrubbers

Moisture Removal – Chillers or condensers

CO₂ Removal – Water scrubbers, PSA, VPSA or membrane

Innovation Driven, Performance Proven

Developed at Praj Matrix – our world-class Innovation Center, RenGas™ sets new benchmarks in biogas upgrading with its advanced design and intelligent operation.

Modular & Scalable Architecture

Easily adaptable to varied plant capacities and future expansion

High Methane Recovery

Delivers 96% -98% methane purity with minimal losses

Smart Automation

Equipped with RemoteBridge™ for remote monitoring for seamless operations

Optimized Footprint & Energy Use

Engineered for space efficiency and lower operational costs

CBG Applications



Industrial use -
in kilns & furnaces



Power generation -
for grid and captive use



Automotive fuel -
replaces CNG



Pipeline injection -
under CBG-CGD synchronization



Industrial heating

Why Choose Praj?

40+ Years in Bioeconomy Leadership

Understands science behind **Raw Biogas** production and its conversion to **CBG**

More than **45** Spent Wash to Raw Biogas Projects Delivered

More than **10 CBG Projects** Delivered

RenGas™ – World-Class Purification System

More than **10 CBG Projects** Under Execution

Integrated Design, **EPC & Automation** Capabilities

Reliable after-sales services

RenGas™ by Praj

Clean. Compressed Bio-Gas. Delivered.

Contact Us

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