HySights

Rajasthan Compressed Biomethane Project

Project Background

Tejomay's Compressed Biomethane project is an early-stage greenfield anaerobic digestion portfolio being developed by Tejomay Green Energies, an Indian renewable energy company based in Jaipur and part of a local industrial group. The first plant will be established in the Bharatpur district of Rajasthan, India, on land the promoter has already bought and converted to industrial use.

The project will run mainly on Napier grass, with cattle dung and farm residues used as backup feedstock or opportunistically. The biogas from anaerobic digestion will be cleaned to remove H_2S and upgraded into Compressed Biomethane, then compressed to about 250 bar before being delivered via trucks to natural gas injection points. Phase 1 is sized at roughly 5 tonnes a day of compressed biomethane, with four further plants of the same size planned in nearby districts to take the portfolio to about 25 tonnes a day. Indian oil is the planned offtaker and reseller of the compressed biomethane. Further, the developer plans to separate the solid fraction of the digestate and sell it as organic manure, with one of the key sponsr being an offtaker.

Project Summary

Sovereign risk - Moderate. India actively supports compressed bio-gas

HySights Rating

Bankability	Cost	Emissions
D	B	D

Location: India

State / Region: Rajasthan

Project State: Concept

Power or Fuel Source:
Napier Grass, cow manure

Production Pathway: Biomass

End Product(s):
Compressed Biomethane

Project Sponsor(s):
Tejomay Green Energies (Haritika Group)

Production Technology:
Anaerobic Digestion

Phase 1 Production Scale:
1,650 tpa

Open to Outreach: Yes

Last Updated: 29 July 2026

Contact Details:

Contact Person: Nitesh Kumar Sharma

Email: director@haritikagroup.com

Contact Number: +91 92169 82894

through SATAT and the CGD market framework, and the likely buyers are state-owned oil marketing companies, so policy support is real. Also, with the expected revamped integrated policy to be rolled out in the short-term, more state support is expected. The project is also eligible for for the national Bioenergy capital grant. The soft spots are that no incentive has been awarded yet, and Indian planning and approvals can be slow.

Execution risk - High. The sponsor has delivered no commercial plants, no pilots and no similar projects in India, and likewise has not completed significant capital projects in any adjacent industries. This would be its first plant, built and owned in-house. A process and technology partner has been proposed but the EPC contractor is not yet formally appointed. The mitigating points are the genuine local farming and community networks in the district which is a part of the sponsor's group of companies.

Timing risk - Moderate to high. The project is at pre-FEED, with an aggressive timeline - three months to entering FEED, nine months to a final investment decision and eighteen months to commissioning on the sponsor's own planning. Investment decision is targeted around late 2026. Delays of six to twelve months have already been incurred against announced milestones, and without long-lead equipment being ordered or reserved, more delays are expected. Separately, feedstock and offtake both remain at letter of intent stage.

Location risk - Moderate to high. Site risk is the strongest part of the package. The land for the first plant has been bought and converted to industrial use. Even though it is greenfield, it is not near a protected area. The risks on the otherhand are more climatic: high summer temperatures, water scarcity and localised monsoon flooding could affect reliability of the plant. The further permits to be obtained are operational - groundwater abstraction and construction.

Feedstock risk - Moderate to high. Napier grass is a dedicated energy crop that has to be established, harvested, trucked in from within about ten kilometres, chopped and stored prior to feeding. Each plant needs roughly 28,000 tonnes a year from about ten suppliers on leased or contract-farmed land which are linked to the sponsor's sister company operations. Despite the traversal synergies, nothing is contracted today, and the ten-year tenure has not been negotiated. Cattle dung from local gaushala (cow sanctuaries) and crop residues are used as backup or opportunistically.

Offtake risk - High. Even though selling compressed biomethane by truck to the oil marketing companies under SATAT is a well-established route, nothing is legally binding today with the contract terms still open for negotiation. The digestate, also even though can be offtaken by the sponsor's sister company and resold to local farmers, is planned only on spot sales basis.

Technology and design risk - Low to moderate. The process steps are all proven and commercially available in India: anaerobic digestion, hydrogen sulphide removal, membrane or PSA upgrading, and compression to about 250 bar, at a claimed technology readiness of nine. The plant has five process islands, is partly modular, runs on grid power and produces digestate as its only by-product. Grass pre-processing adds handling complexity compared with

an effluent-fed plant, and the minimum stable load is still to be confirmed at design stage.