

4. CBG Case Studies

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1. Agripower SpA Plant

- **Name:** Agripower SpA plant
- **Location:** Italy
- **Installation Date:** 2010
- **Production Capacity:** 5.5 million m³ of biomethane per year
- **Feedstock:** Cellulosic waste of non-food origin, animal waste, food processing industrial waste
- **Feedstock Requirement:** 60,000 tons/year
- **Application Area:** Biomethane in grid, electricity partly self-consumed and partly sold, while the thermal energy is completely used in the plant
- **Innovative Practice:** Mixed feedstock digestion technology with biogas application for three different areas: biomethane, generating electricity, and producing heat



Source: Biomethane-RNG Channel

2. Coëvrons Biomethane Plant

- **Name:** Coëvrons Biomethane Plant
- **Location:** France
- **Installation Date:** 2022
- **Production Capacity:** 2,060,000 m³ of biomethane/year
- **Feedstock:** Mix of manure, straw, sludge, grease
- **Feedstock Requirement:** 82 tons/day
- **Application Area:** Gas injected to GRDF grid
- **Innovative Practice:** Nearby farmers are the feedstock suppliers and receive equivalent amount of digestate in return from the plant making it win-win for both parties

Source: <https://www.gruppoab.com>



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3. Verbio CBG Plant

- **Name:** Verbio CBG Plant
- **Location:** Sangrur, Punjab, India
- **Installation Date:** 2022
- **Production Capacity:** 33 TPD of biomethane
- **Feedstock:** Paddy straw, other agricultural residue
- **Feedstock Requirement:** 300 tons/day
- **Application Area:** Gas produced is used as a vehicular fuel using cascades
- **Innovative Practice:** Solves the stubble burning problem by utilization of agricultural residue in the region

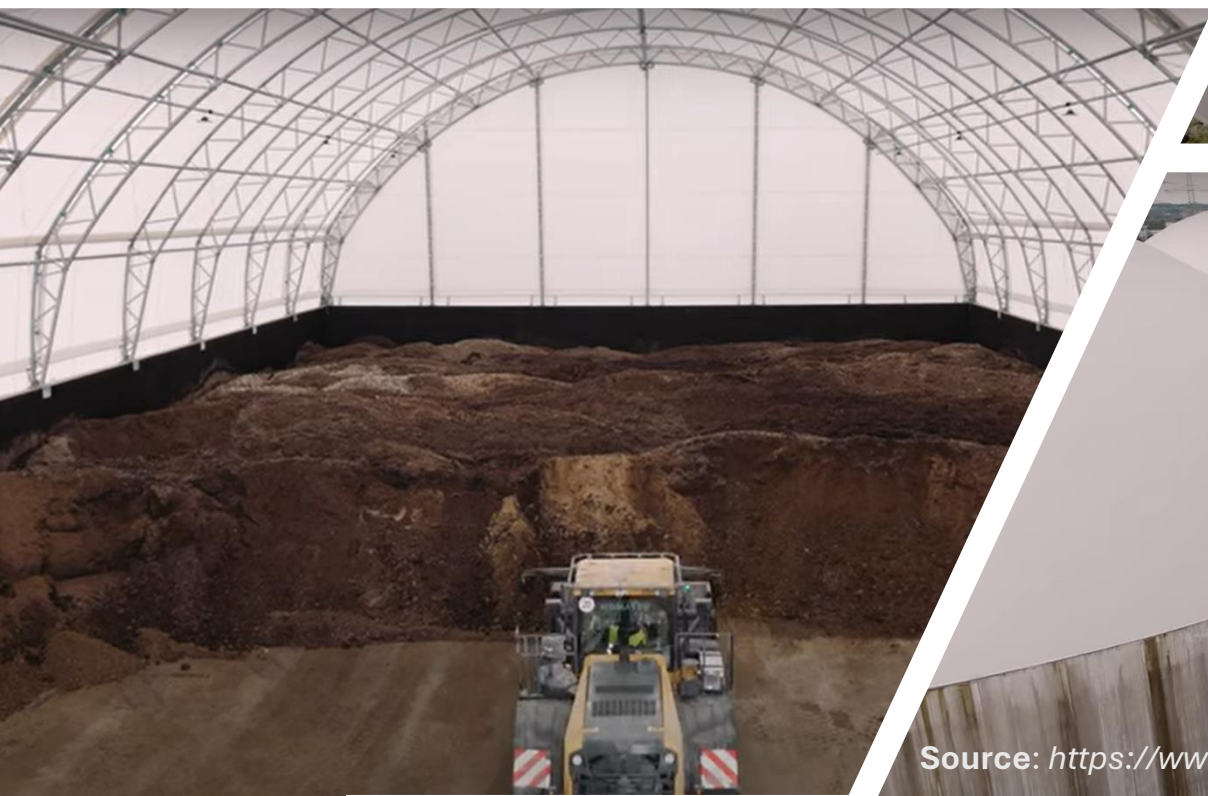


4. Bioenergy Park Güstrow

- **Name:** Güstrow Plant
- **Location:** Güstrow, Germany
- **Installation Date:** Commissioning in 2009, conversion in 2023
- **Production Capacity:** 9,000 tons bio-LNG, 18,000 t LCO₂, CHP with 3.1 Mwe/l per year
- **Feedstock:** Agricultural residues
- **Feedstock Requirement:** 150,000 tons per year
- **Application Area:** bio-LNG as green truck fuel
- **Innovative Practice:** Germany's largest integrated bio-LNG plant with bio-CO₂ liquefaction

Source: <https://www.envitec-biogas.de/referenzen/guestrow>





Source: <https://www.envitec-biogas.de/referenzen/guestrow>

5. Indian Potash Limited CBG Plant

- **Name:** Indian Potash Limited
- **Location:** Uttar Pradesh, India
- **Installation Date:** October - 2020
- **Production Capacity:** 10 TPD
- **Feedstock:** : Pressmud (Sugar Industry Waste)
- **Feedstock Requirement:** 300 TPD
- **Application Area:** Gas produced is used as a vehicular fuel using cascades
- **Innovative Practice:** Solid and liquid digestate produced at the plant are enriched with other nutrients and marketed in different forms to farmers





6. Biorefinery Complex In Québec

- **Name:** Varennes Biogas Plant
- **Location:** Québec, Canada
- **Installation Date:** 2018
- **Production Capacity:** Biomethane of 2060 m³/hour
- **Feedstock:** Source separated organic materials (50%), organic industrial and commercial waste (49%) and septic waste (1%)
- **Feedstock Requirement:** 120,000 tons per annum
- **Application Area:** 7% of its biogas production to maintain digesters' temperatures; 800 m³/hour of biogas is piped to the ethanol plant, the rest of the biogas upgraded and injected to pipeline
- **Innovative Practice:** Integrated biorefinery where biogas produced is used as fuel for the adjacent ethanol plant and thus reduced its overall carbon intensity

Source: IEA Bioenergy



7. Marx & Wahlen Biomethane Plant

- **Name:** Marx & Wahlen Schillingen Plant
- **Location:** Schillingen, Germany
- **Installation Date:** 2024
- **Production Capacity:** 200 m³ of biomethane per hour
- **Feedstock:** Bovine, equine and chicken manure, agricultural residue
- **Feedstock Requirement:** 15,500 tons/year
- **Application Area:** Injected into natural gas grid of Stadtwerke Trier meeting the energy needs of 1,000 local families
- **Innovative Practice:** The existing biogas plant operating from last 20 years was upgraded to a biomethane facility using membrane upgradation system in 2024



8. Indore CBG Plant

- **Name:** Indore CBG Plant
- **Location:** Indore, Madhya Pradesh, India
- **Installation Date:** 2022
- **Production Capacity:** 18 TPD of Biomethane
- **Feedstock:** Organic fraction of municipal solid waste
- **Feedstock Requirement:** 500 TPD
- **Application Area:** 50% to run Indore city buses; 50% for industrial and commercial use
- **Innovative Practice:** Indore's impressive waste segregation at source and efficient waste collection mechanism. The plant generates 20 % of its power requirement from rooftop solar



Source: Smart Cities Mission

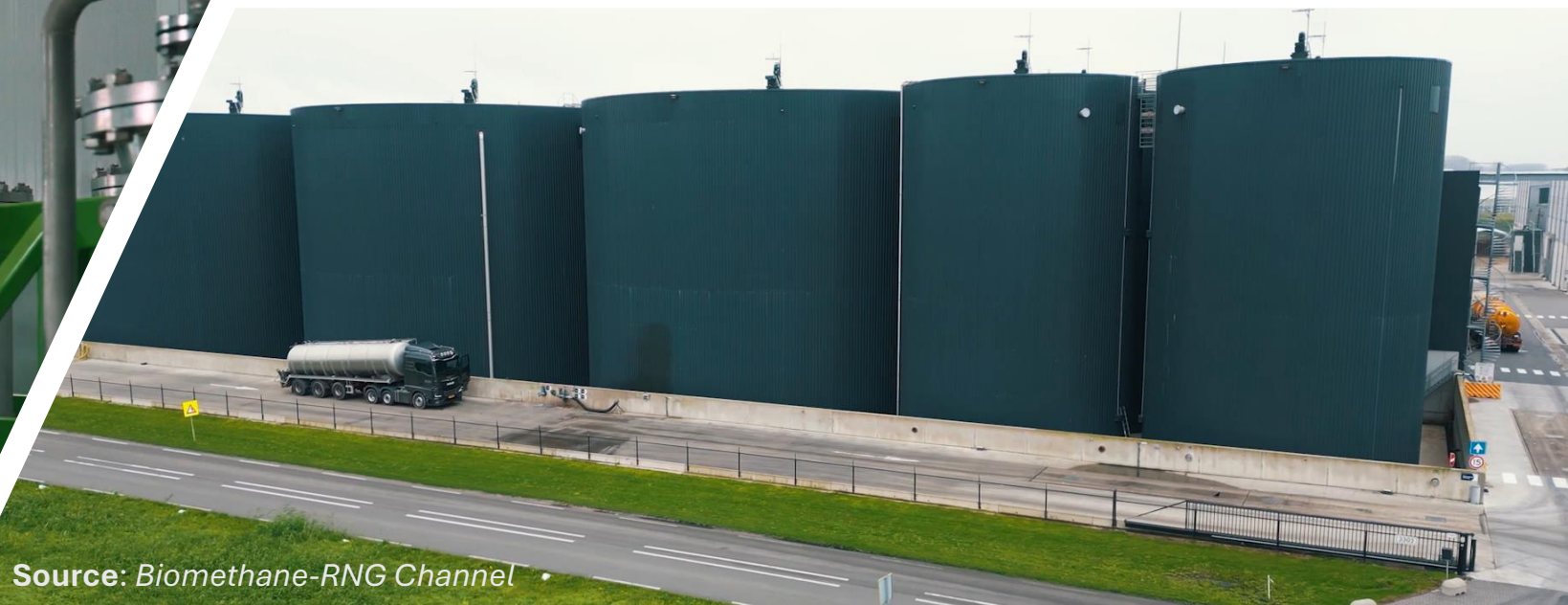
9. Nesselnbach Biogas Plant

- **Name:** Nesselnbach Biogas Plant
- **Location:** Nesselnbach, Switzerland
- **Installation Date:** 2018
- **Production Capacity:** 800 m³/h of raw biogas
- **Feedstock:** Food waste from restaurants, hospitals and residential facilities
- **Feedstock Requirement:** 300 tons per day
- **Application Area:** Biomethane injected into the gas grid for distributed use in heat and power generation
- **Innovative Practice:** CO₂ cleaning and liquefaction plant to produce food grade quality biogenic CO₂ (4000 tons of food-grade liquid CO₂ per year). Additionally, income through the sale of CO₂ compensation certificates



10. Sustainable Fuel Plant (SFP) Zeeland

- **Name:** Sustainable Fuel Plant (SFP) Zeeland
- **Location:** Zeeland, Netherlands
- **Installation Date:** 2019
- **Production Capacity:** 4500 m³ of biomethane per hour
- **Feedstock:** 50% manure, 50% residual organic materials
- **Feedstock Requirement:** 400000 m³
- **Application Area:** Gas produced is used as a vehicular fuel
- **Innovative Practice:** CO₂ is recovered and liquefied for the production of biogenic CO₂. 20 kilotons per year of CO₂ liquefaction. Also, the plant has an impressive 99% uptime, meaning that it operates almost continuously, with very little downtime for maintenance or repairs



Source: Biomethane-RNG Channel