PRESALES DESK | PROJECT GUIDE

Bio-CBG Plant
Complete Project Guide

Land, waste, investment, utilities and timeline for 3 to 15 TPD plants



Biofics multi-feed Bio-CBG and bio-fertilizer plant, Surat, Gujarat

32+
projects in progress

3 states
plants in Gujarat, UP and MP

~15 months
typical build from order

Dear Sir,

Thank you for your interest in setting up a Bio-CBG plant. Biofics plants are running in Surat, Rajkot, Shahjahanpur and Pilibhit.

This guide gives you a clear picture of what a CBG project needs, so you can plan with confidence and decide your next step.

Shared by our presales team **for your general knowledge.** This is **not a quotation.** Your final proposal is prepared by our technical team after a detailed discussion of your site, waste and goals.

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Plant Ladder: find your size

Every plant needs land, daily waste and your own funds in proportion. Find the row that matches what you have.

Plant size (CBG per day)	Land (acres)	Waste needed (tonnes per day)	Plant cost* (₹ Cr, excl. GST)	Funds in hand* (₹ Cr)
3 TPD	3 to 3.5	65 to 70	**14 to 18**	**5 to 5.5**
5 TPD	4 to 4.5	120 to 130	**21 to 25**	**7 to 8**
6 TPD	5	145 to 160	**22 to 27**	**10 to 12**
8 TPD**	6.5	190 to 210	**35 to 40**	**12 to 14**
10 TPD**	6.5 to 7	240 to 260	**41 to 45**	**15 to 18**
12 TPD**	7 to 7.5	280 to 300	**44 to 50**	**18 to 20**
15 TPD**	8 to 8.5	360 to 390	**60 to 65**	**20 to 23**

*** Multi-feed plants differ.** Figures are for standard feed (Napier grass and cow dung). Plants on paddy straw, press mud or other agri residue need extra pretreatment, so plant cost and funds needed are higher. Our technical team confirms these for your waste.
** 8 TPD and above are indicative and confirmed by our technical team on request.

Plant cost

Biofics scope only: consultancy and approvals, process civil works, all machinery, and first-year operations. GST is extra (about 12%). Land and site infrastructure are not included.

Funds in hand

What you should be ready to invest yourself. It covers the promoter share banks expect, plus site works. The balance is usually a bank term loan.

Waste

Daily quantity for Napier grass and cow dung. Other waste types change the quantity and the plant design. Our DPR fixes the exact mix.


Surat, Gujarat


Rajkot, Gujarat


Shahjahanpur, UP

What can change your plant cost

The ladder shows typical plants. Six things move the final number up or down.

1 Type of waste

Our base design runs on Napier grass and cow dung. Paddy straw, press mud and other agri residue need extra crushing, pretreatment and a pre-digester.

> Multi-feed plants typically cost about 25% more than the standard figures in the ladder.

2 How you sell the gas

Pipeline injection into a city gas network costs about ₹1 to 1.5 Cr less than cascade supply. With cascades, the number of cascades depends on the distance to the CNG station.

3 Your site

Soil strength, levelling, flood level and the distance to power and water all change civil cost. Civil figures stay indicative until the soil test and site survey.

4 Your own scope

Land, transformer and power line, standby DG, roads, boundary wall, lagoon, fire system and vehicles are arranged by you. They are not part of the plant cost.

5 Rules and compliance

Current figures already include the Gas Chromatograph now mandated by MoPNG for CBG plants. A new government rule can add equipment later.

6 Optional add-ons

Spares packages, extra cascades, larger storage or special gas-cleaning for poultry litter are priced only if your project needs them.

Read the ladder as a starting point, not a final price. Your exact figure comes only after our technical team studies your waste, site and gas offtake.

Power, water and people

What your plant needs to run every day.

Plant size	Power use (kWh/day)	Transformer (KVA)	Standby DG (KVA)	Fresh water (KL/day)	Skilled staff	Support staff
3 TPD	2,700	350	200	25 to 30	5 to 6	14 to 15
5 TPD	4,500	500	200	40 to 50	5 to 6	14 to 15
6 TPD	5,000	500	200	40 to 50	5 to 6	17 to 18
8 TPD	6,000	800	400	60 to 70	5 to 6	18 to 20
10 TPD	8,500	1,000	400	80 to 100	5 to 6	18 to 20
12 TPD	10,000	1,000	400	80 to 100	5 to 6	20 to 22
15 TPD	13,500	1,000	400	100 to 120	6 to 7	20 to 22

Final figures are set at the detailed engineering stage and vary with your feedstock.

SELF-CHECK

Are you project-ready?

A CBG plant moves fast when these are in place.

Funds

Your own investment for the plant size you want.

- [ ] I can arrange the funds-in-hand amount.

Land

A plot of the size shown in the Plant Ladder.

- [ ] I own or have identified the land.

Waste

A steady daily supply of feedstock, own or tied up.

- [ ] I have a reliable daily waste supply.

Power

Grid connection of the required load.

- [ ] Power is available or can be arranged.

Water

Fresh water on site, every day.

- [ ] Water is available in the required quantity.

The first three are must-haves. With them in place, you are ready for a technical discussion. Power and water are planned alongside.

How a Biofics plant works

From waste to clean gas and organic manure, in five steps.



Biofics Bio-CBG plant, Surat, Gujarat

STEP 1
Prepare
Waste is received, shredded and treated with our proprietary pretreatment for higher gas yield.

STEP 2
Digest
Sealed digesters convert the waste into raw biogas.

STEP 3
Purify
Our purification system upgrades it to high-quality bio-methane.

STEP 4
Deliver
Gas is filled into cascades for CNG stations, or injected into a city gas pipeline.

STEP 5
Earn twice
Leftover slurry becomes organic manure, a second income stream.

CLEAR ROLES

Who does what

Biofics delivers

- Detailed Project Report (DPR) for bank, subsidy and licences
- Approvals: Pollution Board, PESO, Fire and Groundwater NOCs
- Support for the gas offtake agreement (LOI)
- Plant layout and structural drawings
- Civil works for the process plant
- All plant machinery, installation and commissioning
- First-year operations team and training

You arrange

- Land and land development
- Boundary wall, roads, gate, lighting
- Power connection, transformer, standby DG
- Water source and storage, fire safety systems
- Site buildings: admin, security, staff stay
- Feedstock supply, vehicles for waste and slurry
- Project finance and bank processing

From order to gas

3 to 4 months
Approvals and licences

About 15 months from order
Civil works, machinery, installation and commissioning

ANSWERS

Common questions

Is land included in the plant cost?
No. Land and site infrastructure are arranged by you.

Can I use my own type of waste?
Very likely. Our DPR prepares a feedstock plan for the waste you have, including mixes. The waste type does change the cost.

Is there a government subsidy?
Eligible central and state schemes are mapped in your DPR, and our team supports the application.

Who buys the gas?
CNG stations and city gas networks. We support the offtake agreement as part of our scope.

Can I visit a running plant?
Yes. Plant visits are scheduled for promoters who have filled the Project Readiness Form.

Why is this not my final price?
Cost depends on your waste, site, offtake model and technical needs. Our technical team fixes it after the detailed discussion.

How we take it forward

Every Biofics proposal is built for one site. Here is how we get there with you.

1. **Readiness Form**
   Link shared on WhatsApp by our presales team
2. **Technical meeting**
   Our project team studies your site and waste
3. **Site visit**
   Feasibility check on your land
4. **DPR**
   For bank, subsidy and licence work
5. **Your proposal**
   Built for your exact requirement

Please note: All figures in this guide are indicative and shared for general knowledge only. Actual cost, land, waste, utility and funding needs depend on your feedstock, site conditions, gas offtake model and technical requirements. They are final only in the detailed proposal from our technical team.

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YOUR SUSTAINABILITY PARTNER

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Call us for the Project Readiness Form, a plant visit slot or any question on this guide.

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BIO-CBG Plant

Clean Energy Infrastructure

Biofics
YOUR SUSTAINABILITY PARTNER

32+ ongoing projects



Surat, Gujarat.
Operational with 5 TPD output
Powered by i-VPSA & Tri-Biomak Tech.



Shahjahanpur, UP.
Producing high-quality Bio-CBG & FOM
Automated Bio-CBG Plant by Biofocs Tech.



Rajkot, Gujarat.
Producing ~5 TPD Bio-CBG
Core tech systems installed.



Pilibhit, UP.
Producing high-quality Bio-CBG
Smart Bio-CBG Plant by Biofics



Mandsaur, MP.
Under commissioning phase
Final testing & system integration underway.



Sitapur,UP.
Under commissioning phase
Final testing & system integration underway.



Jamnagar, Gujarat.
Machinery Installation & Commissioning
Project Progressing Towards Completion



Kim,Gujarat.
70% civil work completed
Project execution in progress.

Scan to Explore More

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Access project insights, company information, and plant media through the QR codes below.

325 Days of Operation

Inside the real journey of a working 5 TPD Bio-CBG plant in Rajkot.



Rajkot Plant Walkthrough

View our key Bio-CBG projects, current progress, and operational highlights.



Future Of BioCBG

Watch plant overviews, podcast discussions, and project highlights.

