

FILL IT, SHUT IT, DISRUPT IT

Can Bajaj's CNG bike Freedom 125 revolutionise the two-wheeler market?

SURAJEET DAS GUPTA New Delhi, 10 July

ast week, the country's second-largest two-wheeler maker, Bajaj Auto, launched a motorcycle powered by compressed natural gas, or CNG. The fuel first rose to prominence more than two decades ago when the national capital region of Delhi cut down on emissions by deploying buses, taxis, and three-wheelers running on CNG, but it was not really envisioned as a two-wheeler fuel.

But Bajaj, which is the world's largest maker of three-wheelers, had its own ideas. Its Freedom 125 is said to be the world's first CNG-powered motorcycle launched commercially. It comes in three variants, with prices ranging from ₹ 95,000 to ₹110,000. It has a 2-kg CNG cylinder and a 2-litre petrol tank, and can switch from one to the other.

The initial deliveries will begin in Maharashtra and Gujarat — two states that have a large CNG refilling infras-

tructure — and then expand to other states in phases. Though there is no immediate plan now, the company could also look at powering CNG scooters in the future.

Can Bajaj's CNG bike disrupt the 12 million units a year motorcycle market?

It comes at a time when the electric two-wheeler industry is taking shape, though it is grappling with its own issues in effecting a large-scale shift, and petrol continues to dominate the market. In motorcycles, in particular, electric has not made much headway

Three wheels to two

It has not happened anywhere in the world so far. In 2009, Zanela in Argentina tried out a factory-fitted CNG two-wheeler model, but it did not take off commercially. Some of the Chinese companies tried their hand at CNG, too, but did not get traction. Bajaj, for its part, is buoyed by CNG's success in India, especially in three-wheelers. In 2023, CNG accounted for 65 per cent of all three-

wheelers sold in India.

The caveat is that three-wheelers are for commercial use, and two wheelers are personal vehicles

Rakesh Sharma, executive director, Bajaj Auto says CNG has a large market because of its low operating expense (opex) and high fuel economy.

"The primary target for us is mileage- and opex-sensitive customers. They are most likely to be in the 100cc to 125cc segment, which accounts for 75 per cent of motorcycle sales (750,000 a month)." Bajaj already operates in this segment. So, is there a chance its CNG bike will cannibalise its petrol bikes?

"Our market share in this segment is only 15 per cent, though in the next segment (150cc to 250cc), it is 40 per cent. Our proposition is primarily halving of the fuel expense compared to a similar petrol-based motorcycle. In addition to that, we have made a bike with stand-out styling and greater comfort," says Sharma

But what about the higher price of the CNG motorcycle? Will customers

be attracted to the lower opex enough to pay the higher price?

Bajaj's CNG bike costs about ₹15,000 more than a comparable petrol motorcycle. Assuming it runs 50 km a day for 25 days every month, Sharma says, the additional cost of buying it can be recouped in nine months because the savings on fuel are about 21 per cent.

The more the bike runs, the bigger the savings in relation to a petrol bike. That is the big difference from scooters, whose usual running is seen to be half of motorcycles.

Disruption on the cards?

The company is not hazarding a guess on how much its CNG bike will sell. Sharma says he will be in a better position to speak about this once all three variants are in the market, likely by the end of September.

As an indication, though, Bajaj is looking at a production capacity of 10,000 per month in the next two to three months, which could rise to 40,000 by the end of 2025. That will still be less than 5 per cent of the addressable market.

Bajaj's rivals say the CNG bike is just an experiment. "I think they are testing the waters to see if there is a market. That is why they are not giving sales targets. Considering that 90 per cent of the parts in an ICE and CNG bike are the same, they don't need any major incremental investments," says the top executive of a two-wheeler company.

The biggest challenge is the limited network of CNG filling stations in the country. That is one of the points people have picked up. As reported by this newspaper earlier this week, stock market analysts acknowledge Bajaj's move to be "bold" and a "significant milestone", but they also say that it might take time for Bajaj to reap the benefits. CNG use in personal vehicles has been limited and the CNG network needs to be ramped up to drive adoption.

Sharma says CNG is available in 335 cities, accounting for 70 per cent of the addressable market, but concedes that what matters is the depth of its reach and penetration in those cities.

Top executives of more than a dozen CNG companies attended the

THE ROAD AHEAD

Motorcycle segment Bajaj is eying with its CNG model

Market share in segment (%) 75 – 110 cc Domestic sales (FY24) 569,102 10.07 Bajaj Auto Hero 77.2 4,391,903 MotoCorp 110-125 cc Domestic sales (FY24) Market share in segment (%)

Note: Bajaj has been compared with the biggest player in each segment. There are many other players in each. Market

DECISION MAKERS

866,579

1,307,301

CNG advantages

Bajaj Auto

Honda Motorcycles

▶ Operating cost half of a petrol motorcycle: Petrol bike costs ₹1.8/ km and CNG ₹0.75/km

Carbon emission 26% lower than petrol bike

The higher price of a CNG bike, compared to a petrol one, can be recouped in 9 months

CNG challenges

Higher market price than a comparable petrol bike Limited refilling infrastructure, concentrated in a few states

27.1

40.9

▶ Electric bikes with zero emission a better option for reducing emissions

▶ Safety concerns

▶ Bulky CNG cylinders reduce efficiency

▶ Half of the country's CNG is imported, so no forex saving

launch of Bajai's CNG bike. The feedback is that in the next six months they will work to expand the network. In the 16 months to April 2024, the

number of CNG outlets grew by more than 36 per cent. Yet, the challenge remains of uneven distribution. More than half the CNG stations are

concentrated in five states: Delhi, Maharashtra, Gujarat, Uttar Pradesh, and Haryana. And personal vehicle owners, unlike three-wheeler operators, will prefer a filling station Electric two-wheeler makers, some

of whom are looking to launch electric motorcycles, do not think much of a CNG bike.

"Electric is the only way to meet the government's objectives of reducing

carbon emission and saving on foreign exchange. CNG can at best be an interim measure," says the top executive of an electric two-wheeler maker. "By their own admission, CNG reduces carbon emission by 26 per cent compared to a petrol vehicle, but electric offers zero emissions. Half of CNG requirements are imported, so it will only increase the foreign exchange outgo." Bajaj executives counter this by saying that if petrol is substituted with CNG, it will save foreign exchange because both are imported but CNG is the more efficient fuel, EVs. on the other hand, use imported batteries, which cost foreign exchange. In addition, they say, much of the EV charging infrastructure uses electricity produced by coal.



Episode 13

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