COMPANY UPDATE

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BUY
TP: Rs 1,030 | ▲ 19%

MAHANAGAR GAS | Oil & Gas | 18 January 2023

Healthy medium-term outlook

- **Management aims to double the annual growth run-rate to 6% in the medium term by accelerating network buildout**
- **Our GA-wise analysis indicates that network expansion in GA2 is driving faster growth in CNG, domestic and commercial volumes**
- **We assume coverage with BUY and a TP of Rs 1,030**

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Trades at a discount to peers…: MAHGL has been trading at a significant discount to peers over the past 3Y/5Y with mean 1Y forward PE at 11.4x/12.4x vs. 18.4x/20.2x for IGL and 22.8x/21.2x for GUJGA on consensus estimates. The discount has widened recently with MAHGL trading at 10.8x whereas IGL and GUJGA are at 18.3x and 19.8x respectively.

…given slower volume growth but outlook now improving: We believe the valuation discount is attributable to the company's slower volume growth – at a CAGR of 3.1% over FY17-FY22 which compares unfavourably with 8.8% for IGL and 14.6% for GUJGA. Going forward, we expect stronger momentum at 19.8% YoY for MAHGL in FY23 on the back of a post-Covid recovery and an improved 7.0% CAGR over FY24-FY25 as benefits of network expansion become visible.

GA2 showing promise of accelerated growth: MAHGL has expedited network buildout and aims to add 0.15-0.20mn domestic consumers and 30 new CNG stations, with an equal number of upgrades in FY23. We note that network expansion in GA2 is helping to accelerate growth in CNG and other segments. With the implementation of a city gas station, growth in GA3 could also rise as the ecosystem of 23 CNG stations is converted to an online station and new industrial customers are tapped.

Targeting 6% growth in medium term: Over the next five years, MAHGL aims to add 1mn domestic households and 100 CNG stations (for a total of 400), while expanding its pipeline network to 600km of steel and 7,500km of PE pipeline.

BUY, TP Rs 1,030: We expect MAHGL's EBITDA to clock a 13.4% CAGR mainly driven by 11.1% growth in volumes over FY22-FY25. EBITDA margin is forecast to stabilise around ~Rs 9/scm. Our DCF-based TP of Rs 1,030 is based on cost of equity of 11%, volume CAGR of ~5% over FY23-FY33 (we are conservative than MAHGL's target), average EBITDA margin of Rs 8.4/scm, and terminal growth of 2.5%. Our TP implies an FY24E P/E of 12.7x, marginally above the mean 1Y forward P/E of 12.4x on an improving medium-term outlook. Implementation of recommendations by the Parikh Committee is a key positive catalyst for the sector.

Key changes

Target	Rating
▲	▲

Ticker/Price	MAHGL IN/Rs 863
Market cap	US$ 1.0bn
Free float	58%
3M ADV	US$ 4.2mn
52wk high/low	Rs 925/Rs 666
Promoter/FPI/DII	43%/30%/16%

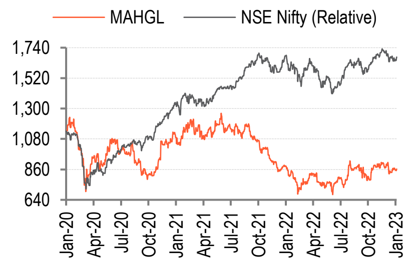
Source: NSE | Price as of 18 Jan 2023

Key financials

Y/E 31 Mar	FY22A	FY23E	FY24E
Total revenue (Rs mn)	35,602	64,697	62,188
EBITDA (Rs mn)	9,243	10,853	12,597
Adj. net profit (Rs mn)	5,970	6,954	7,995
Adj. EPS (Rs)	60.4	70.4	80.9
Consensus EPS (Rs)	60.4	70.6	83.7
Adj. ROAE (%)	17.5	18.4	19.2
Adj. P/E (x)	14.3	12.3	10.7
EV/EBITDA (x)	8.9	7.5	6.4
Adj. EPS growth (%)	(3.7)	16.5	15.0

Source: Company, Bloomberg, BOBCAPS Research

Stock performance



Source: NSE

Investment thesis

While MAHGL has been delivering slower growth than peers, we believe accelerated network development could improve its performance over the medium term. In the core CNG business, we expect CNG-fuelled vehicles to coexist with electric vehicles and continue to grow over the next 5-10 years as EV infrastructure develops. Our forecasts also assume that the government implements recommendations by the Kirit Parikh Committee to restore the competitiveness of CNG while liquid fuel (petrol/diesel) prices are capped. We further bake in higher margins for MAHGL than its closest peer IGL, based on the higher prices that MAHGL can command in its geographical area (GA) of Mumbai due to the higher fuel rates in the city than in IGL's GA of Delhi.

To highlight the potential growth that MAHGL can deliver, we compare its performance over the past five years (FY17-FY22) and our explicit forecasts for FY23-FY25 with those of IGL, which has a similar CNG and PNG mix.

Fig 1 – MAHGL could improve operations in the medium term

Particulars	MAHGL	IGL	MAHGL			IGL		
	FY17-22	FY17-22	FY22-25E	FY23E	FY23E-25E	FY22-25E	FY23E	FY23E-25E
Volume growth (CAGR %)	**3.1**	**8.8**	**11.1**	**19.8**	**7.0**	**11.4**	**15.2**	**9.6**
CNG	2.2	7.8	12.6	25.7	6.5	11.7	18.6	8.4
D-PNG	8.6	13.9	5.7	2.8	7.2	10.8	4.0	14.4
I+C	3.0	15.4	9.4	8.9	9.7	9.8	5.5	12.0
EBITDA/scm (Rs/scm average)	**9.2**	**6.6**	**8.7**	**8.3**	**9.0**	**7.4**	**7.3**	**7.5**
Revenue growth (CAGR %)	11.7	15.1	24.6	82.4	3.0	27.7	77.4	8.3
EBITDA growth (CAGR %)	**7.5**	**14.3**	**13.4**	**17.4**	**11.5**	**11.7**	**14.3**	**10.4**
Net income growth (CAGR %)	8.7	19.9	12.2	16.5	10.1	8.0	5.6	9.3

Source: Company, BOBCAPS Research

While we believe MAHGL could improve growth delivery in the medium term, we remain cautious over long-term prospects and hence use conservative growth assumptions of a 5% CAGR over FY23-FY33 vs. MAHGL's ambitions of a 6% CAGR. We believe higher growth is contingent on resolving space constraints for gas stations in Mumbai which is hindering CNG growth.

MAHGL is attempting multiple initiatives such as compact dispensing units that have a smaller footprint, off-peak price discounts on CNG, and long-haul buses/trucks with type-4 cylinders to enable usage of the fuel. However, we await concrete results before building in higher growth over the longer term.

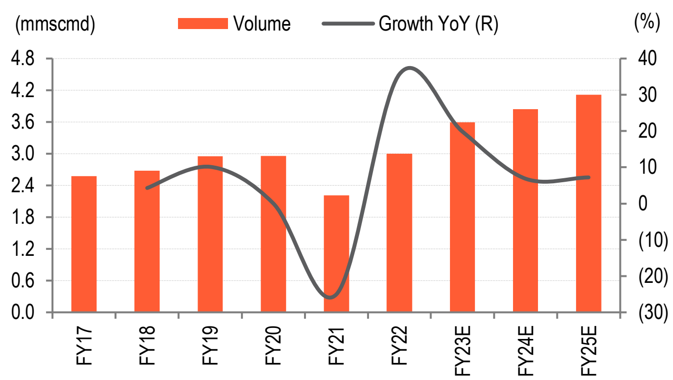
Network expansion to fuel growth

With CNG volumes recovering post Covid-19, we believe MAHGL could deliver a 11% CAGR over FY22-FY25 (7% CAGR over FY24-FY25 after recovery in FY23). The company aims to add 0.15-0.20mn domestic consumers and 30 new CNG stations in FY23, with an equal number of upgrades. The focus is on connectivity to small restaurants in the geographical areas of Mumbai (GA1) and the surrounding area of Thane-Urban (GA2). Raigarh (GA3) too is likely to see a pick-up in industrial PNG and CNG demand with the planned opening of a new City Gas Station in the near term.

Over the medium term, MAHGL's management is looking to deliver 6% annual volume growth by adding 1mn domestic households and 100 CNG stations (for a total of 400), while expanding its pipeline network to 600km of steel and 7,500km of PE pipeline over five years.

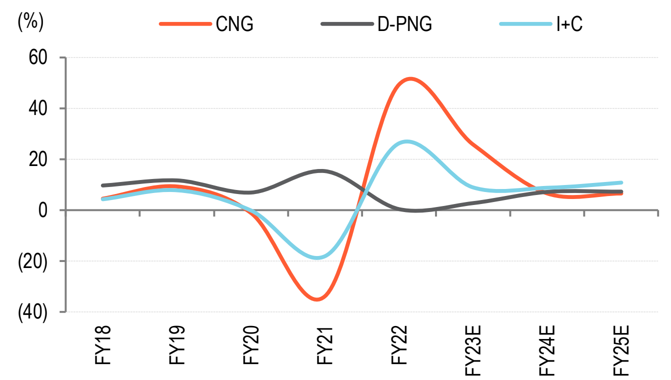
During an investor call we hosted with the management on 13 January, MAHGL pointed to significant growth potential across its markets. While GA1 has matured in terms of CNG infrastructure build-up, penetration is still at only 40-45% of the market. For GA2, infrastructure build-up is at a 60-70% relative to GA1 and penetration is at 30-35%. GA3 is still at an early stage.

Fig 2 – Expect volumes to ramp-up at a 11% CAGR over FY22-FY25E to 4mmscmd…



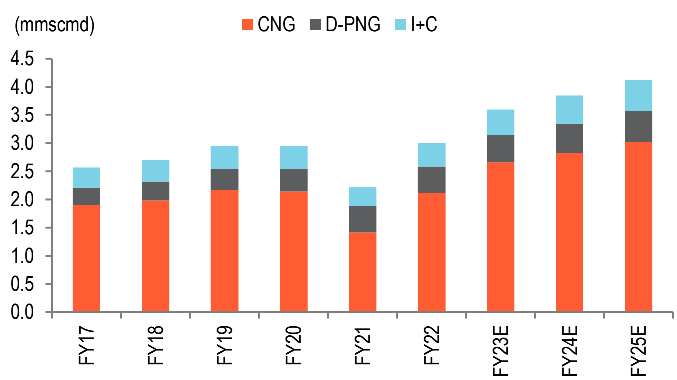
Source: Company, BOBCAPS Research

Fig 3 – …driven by recovery in FY23, ramp-up of CNG stations, gas connections and industrial load in Raigarh



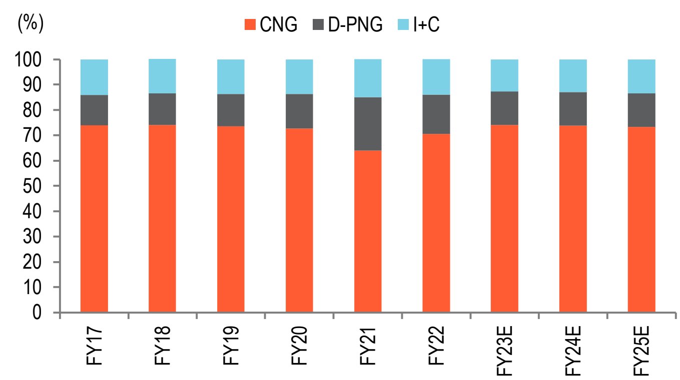
Source: Company, BOBCAPS Research | D-PNG: Domestic PNG; I+C: Industrial + Commercial

Fig 4 – Post recovery in CNG volumes in FY23, expect moderate growth across all three segments



Source: Company, BOBCAPS Research

Fig 5 – High exposure to priority sector to continue with limited industrial and commercial consumers



Source: Company, BOBCAPS Research

CNG – New stations driving vehicle growth

With network expansion translating into vehicle growth, as seen over the past two years, we believe that MAHGL's plan of adding 100 stations over the next five years and upgrading 25-30 existing stations per year could propel growth beyond the historical run-rate. The company has an internal target of ramping up capabilities to support the addition of 50 new stations annually. To improve transportation of CNG within its network, MAHGL has purchased a dozen type-3/type-4 composite cylinder cascades and placed orders for more.

CNG to coexist with EVs in medium term

We expect CNG vehicles to coexist with EVs in the passenger and commercial segments over 5-10 years as challenges to the latter are yet to be ironed out. These include high upfront capex for the user, the need for battery replacement after 7-8 years, inadequate charging infrastructure, higher charging time (cars currently take ~2.5 hours for a full charge at public points), and limited access to charging stations for private vehicles parked on roads. Most taxis also run 2-3 shifts and may not have the time for a recharge.

Addressing space constraints

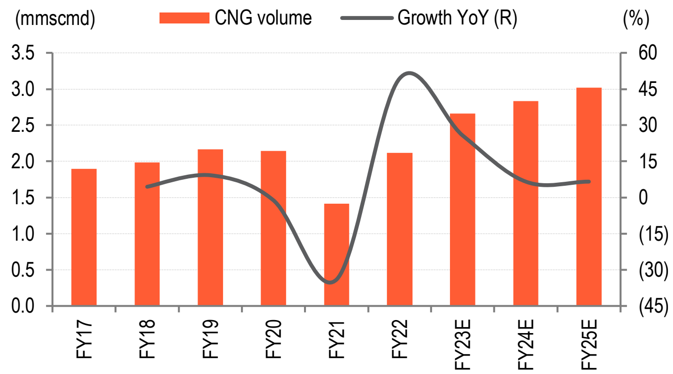
MAHGL faces a key constraint in terms of acquiring adequate space to set up CNG stations, though this has the potential to change if the company succeeds in introducing mobile refueling or compact dispensing units. These units could lower congestion at CNG stations by opening up alternate avenues for refills at societies and malls, among other places. The company is currently conducting a pilot with the implementation of 8-10 units for proof of concept over 2-3 years. Franchisees are still working on securing approvals for the initial stations, where MAHGL has awarded letters of intent (LoI).

Other growth initiatives

MAHGL is also considering a couple more initiatives to accelerate CNG growth:

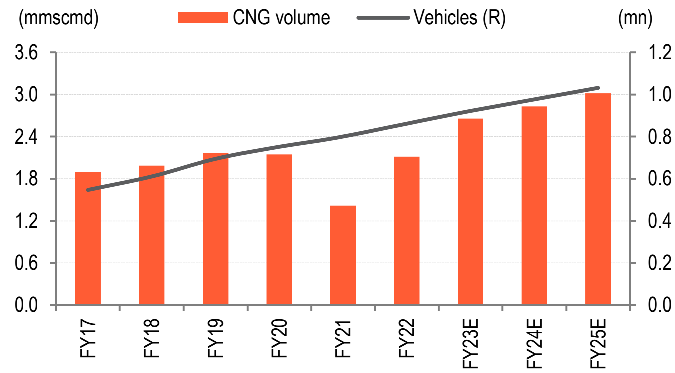
- **Off-peak CNG discount to improve pump utilisation:** MAHGL currently delivers 19mn kg of CNG at its pumps against compression capacity of 35-36mn kg. It is working on automation to launch the discount scheme.
- **LNG station pilot at Raigarh:** The company is working with customers to raise acceptance for LNG vehicles. These can run more than 500km on a single charge with the use of type-4 cylinders.

Fig 6 – CNG growth to be driven by MAHGL's target of adding ~100 stations in 5Y and upgrading existing stations



Source: Company, BOBCAPS Research

Fig 7 – CNG volumes largely recovered in FY23 after the impact of Covid-19



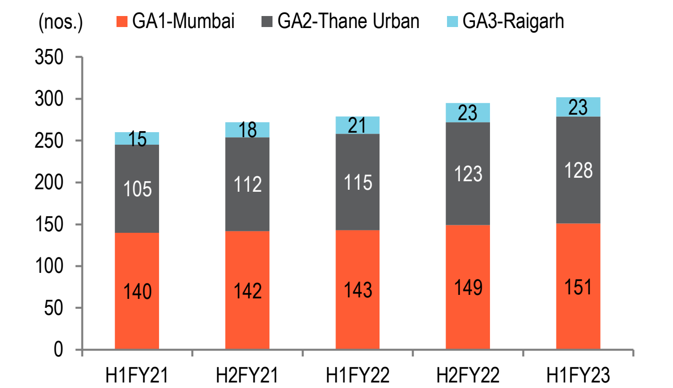
Source: Company, BOBCAPS Research

New stations in GA2 & GA3 lending impetus to CNG vehicle sales

MAHGL has added 42 new CNG stations at an 8% CAGR over Oct'20 to Sep'22. A bulk of the additions have been concentrated in newer markets, with GA2 accounting for more than 50% and GA3 more than 25%. Together these areas now account for 50% of the company's stations.

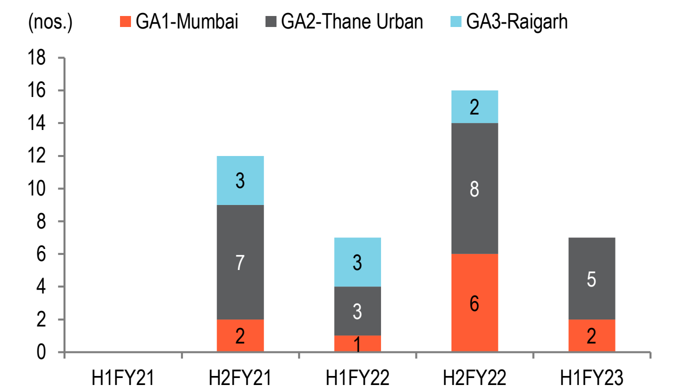
The addition of fuelling stations has been translating into higher sales of light vehicles running on CNG, along with some interest in the medium and heavy commercial CNG vehicle segment (Fig 12). On our management call, MAHGL pointed to a demand slowdown in Q2FY23 after an increase in natural gas prices beyond Rs 80/kg. However, recommendations of the Kirit Parikh committee could help restore the competitiveness of CNG vehicles.

Fig 8 – CNG station development: Accelerating across GA2 and GA3



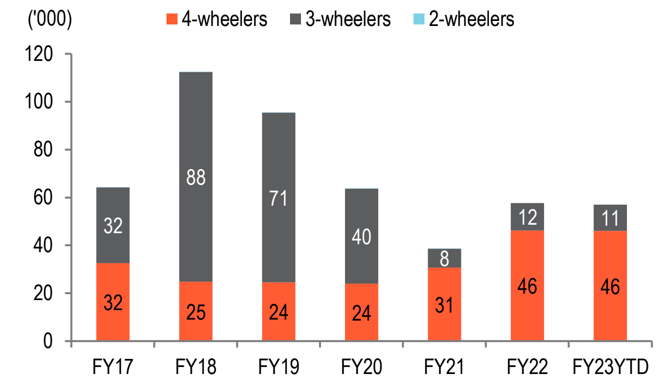
Source: PPAC, BOBCAPS Research

Fig 9 – CNG station addition: GA2 and GA3 account for a bulk of the additions



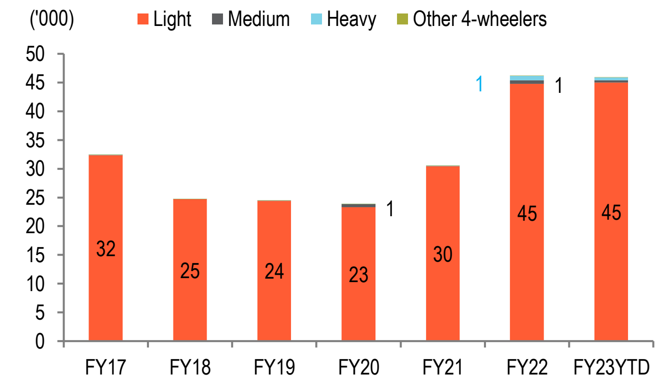
Source: PPAC, BOBCAPS Research | Note: H1FY21 data not available

Fig 10 – CNG vehicle additions in MAHGL's GAs are driven by four-wheelers…



Source: Vahan, BOBCAPS Research | Note: Data shows registrations of CNG + Petrol/CNG vehicles

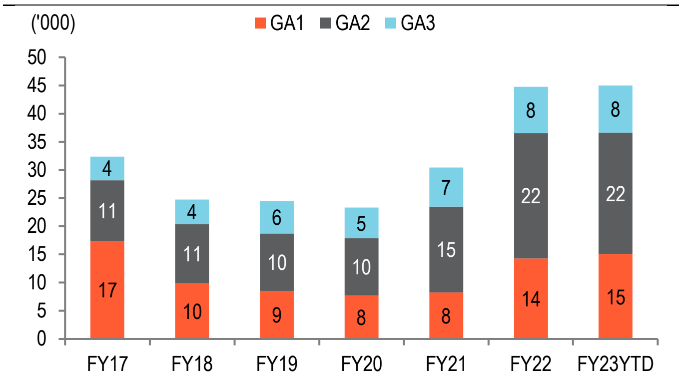
Fig 11 – …particularly light vehicles



Source: Vahan, BOBCAPS Research | Note: Data shows registrations of CNG + Petrol/CNG vehicles

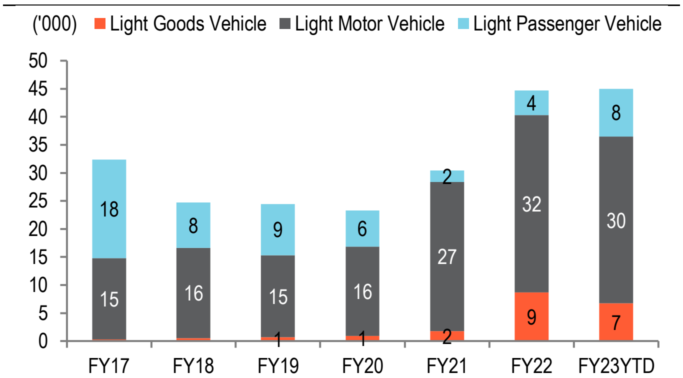
- In GA2, growth in CNG vehicle registration has been driven by network expansion and has further scope to pick up as stations mature and penetration increases. Within the **light vehicle** category, while personal cars in the CNG/petrol-CNG segment lead sale volumes, buyer interest in light commercial vehicles (both goods and passenger) is showing clear signs of pickup.
- Growth in GA3 could also accelerate with implementation of the City Gas Station in Q4FY23. MAHGL has created an ecosystem with 23 CNG stations and is delivering 80-100k kg of CNG volumes. With the City Gas Station, MAHGL will be able to gradually convert its existing CNG ecosystem of 23 stations into an online station, which could improve volume delivery by 1.5-2.0x, allowing for fuel supply to a greater number of vehicles.
- Within **medium and heavy vehicles**, we note a clear increase in CNG vehicle registrations in MAHGL's GAs over the past two years with the addition of close to 1,400 vehicles in FY22 and ~900 vehicles in FY23 YTD. While the scale is much smaller than light vehicles (45k YTD), we see potential for growth subject to an appropriate discount to liquid fuel. The use of CNG is significantly higher in the medium and heavy vehicle segment, both due to higher intensity and higher mileage.
- As against four-wheelers, **three-wheeler** additions largely took place over FY18-FY20. Network expansion in GA2 and GA3 is thus giving rise to only a modest demand uptick.

Fig 12 – GA2 and GA3 now adding a bulk of growth in the light CNG vehicle category



Source: Vahan, BOBCAPS Research | Note: Data shows registrations of CNG + Petrol/CNG vehicles

Fig 13 – Motor vehicles a key driver but commercial vehicles gaining ground



Source: Vahan, BOBCAPS Research | Note: Data shows registrations of CNG + Petrol/CNG vehicles

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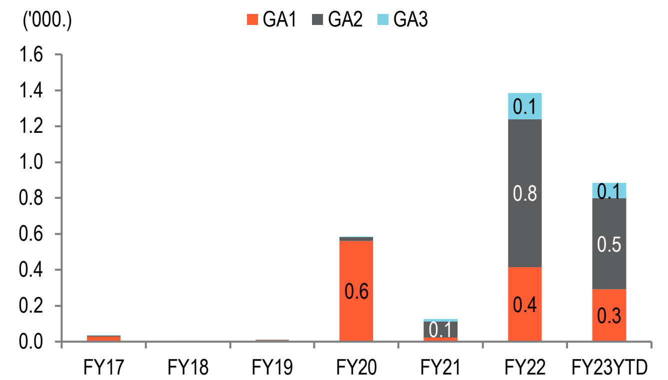
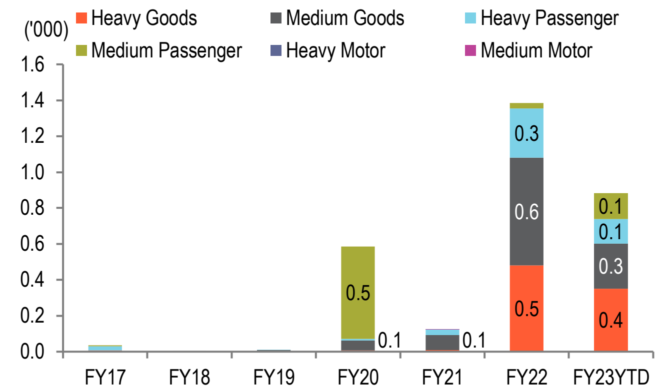
Fig 14 – GA2 has been a key driver in medium and heavy vehicle registrations…



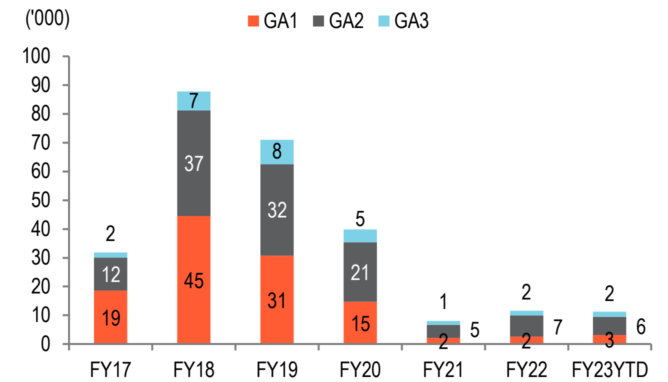
Source: Vahan, BOBCAPS Research | Note: Data shows registrations of CNG + Petrol/CNG vehicles

Fig 15 – …with commercial vehicles accounting for a bulk of the additions



Source: Vahan, BOBCAPS Research | Note: Data shows registrations of CNG + Petrol/CNG vehicles

Fig 16 – Three-wheeler additions have moderated



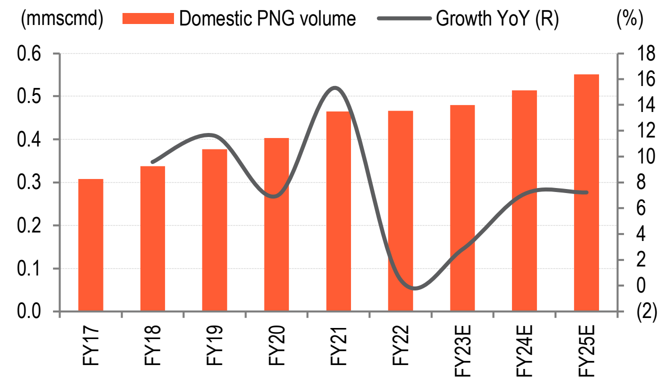
Source: Vahan, BOBCAPS Research | Note: Data shows registrations of CNG + Petrol/CNG vehicles

PNG – Ramping up the customer base

Expect 6% CAGR in domestic business

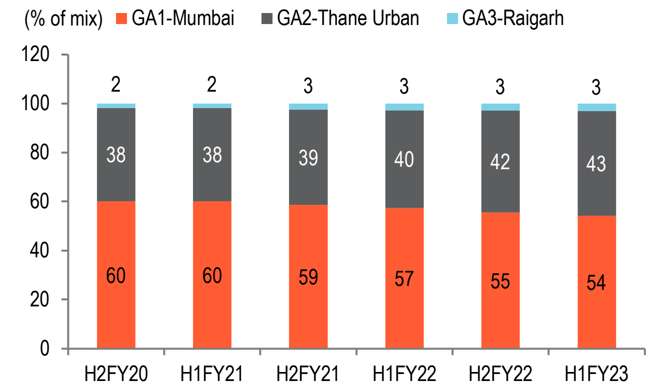
We are building in a ~6% CAGR in domestic PNG consumption for MAHGL over FY22-FY25 assuming a ramp-up of 0.20mn gas connections by the company annually. During our call, management indicated a target of adding 0.15-0.20mn customers in FY23 on top of last year's 0.12mn, backed by a deepening network in legacy GA1, expansion in GA2 and new infrastructure development in GA3. New markets have helped the company expand its customer base by 16% over the past two years as against the legacy growth rate of 9% in GA1. We note that GA2 and GA3 now account for 46% of total connections.

Fig 17 – Domestic gas consumption to grow at ~6% CAGR over FY22-FY25E



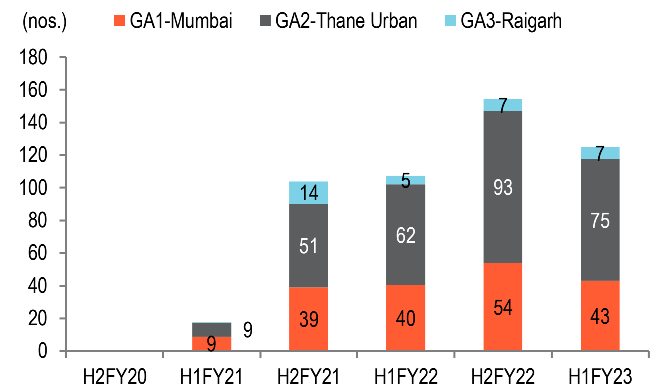
Source: PPAC, BOBCAPS Research

Fig 18 – GA2 and GA3 together now account for 46% of MAHGL's domestic PNG connections



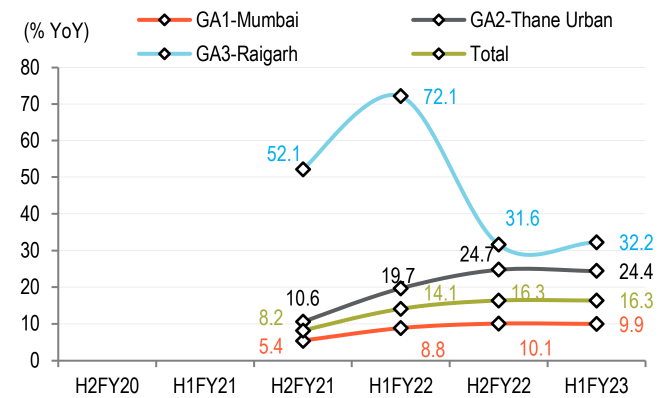
Source: PPAC, BOBCAPS Research

Fig 19 – Domestic connections are accelerating in GA2…



Source: PPAC, BOBCAPS Research

Fig 20 – …growing 16% across MAHGL and 24% YoY in GA2 in H1FY23



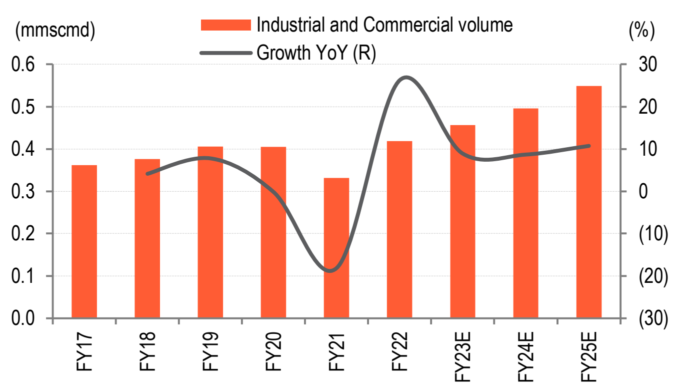
Source: PPAC, BOBCAPS Research

Industrial and commercial segment to see modest growth

We bake in a 9.4% volume CAGR for the industrial and commercial PNG segment over FY22-FY25 on a lower base, to 0.55mmscmd in FY25 from 0.42mmscmd in FY22. We believe key growth drivers for the company would be access to small commercial loads in GA1 by deepening the network, tapping new commercial customers in GA2 as it expands the network, and connecting industrial customers in GA3 as MAHGL covers more area with its pipeline infrastructure.

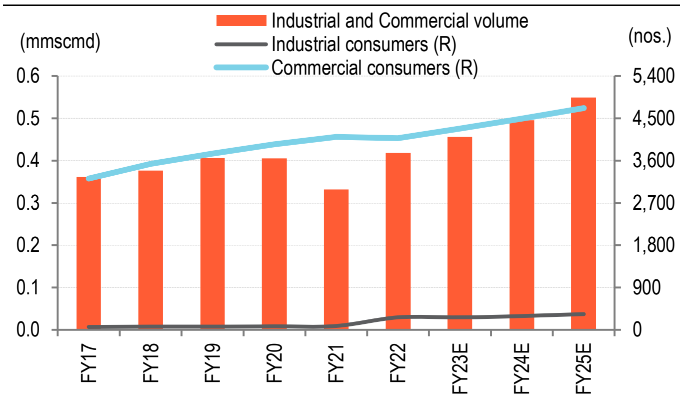
The company is about to complete a City Gas Station in Raigarh district which could enable it to approach industrial consumers. In view of the higher natural gas prices, we have been conservative in our volume growth forecasts and are building in only a part of the demand potential of 0.4mmscmd in Raigarh GA.

Fig 21 – Commercial growth to be driven by smaller consumers



Source: Company, BOBCAPS Research

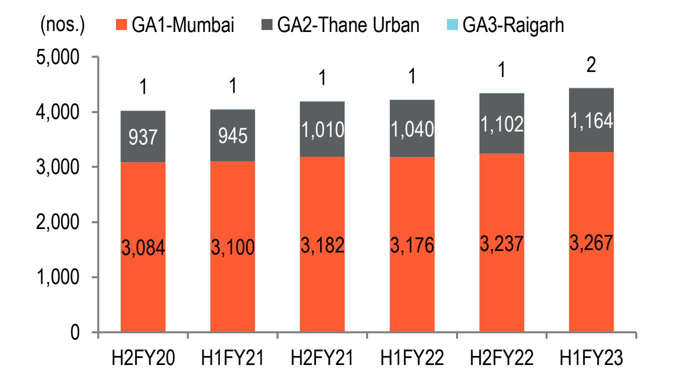
Fig 22 – Industrial growth to depend upon success in Raigarh GA



Source: Company, BOBCAPS Research

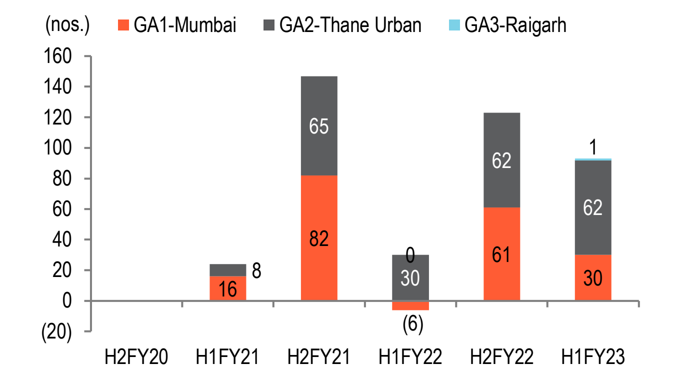
Looking at data over the past six months, we observe the addition of a higher number of industrial and commercial consumers in GA2 than GA1. We have looked at the industrial and commercial category combined as it appears that MAHGL has undertaken a reclassification of customer categories. MAHGL indicated on our call that most consumers in the segment have stayed on through the volatility in natural gas prices, although there has been some reduction in offtake. To lower volatility for consumers, the company has contracted medium-term LNG volumes.

Fig 23 – Industrial and commercial PNG connections are gradually increasing…



Source: PPAC, BOBCAPS Research

Fig 24 – …with deepening of network in GA1 and expansion of network in GA2



Source: PPAC, BOBCAPS Research

CNG: Competitive cost analysis

While CNG vehicles appear to be competitive against petrol and diesel in terms of a simple payback period analysis (just 2-3 years of payback for factory-fitted cars and under a year for external kit-fitting), our analysis of total ownership cost in present value terms indicates that the cost difference is relatively small at 5-20% across EV, petrol and diesel cars.

Payback period <2Y for petrol and diesel cars

While the competitiveness of CNG vehicles has reduced versus petrol variants due to the recent increase in CNG prices, we believe implementation of the Parikh Committee recommendations can help city gas distribution (CGD) companies regain their advantage.

As an example, the simple payback period for a small car such as the Maruti Swift has increased to ~20 months at current CNG and petrol prices. Here we consider fuel efficiency at 15km/l for petrol vehicles and 28km/kg for CNG vehicles (as communicated by Maruti) and incremental capex for a factory-fitted CNG car at Rs 100k. Even in case of a more modest assumption of fuel efficiency of 14km/l for petrol and 22km/kg for CNG, the payback period rises to ~22 months. Note, in this simple payback analysis, we have ignored the difference in maintenance and interest costs for both options.

Fig 25 – Basic payback analysis for CNG vs. petrol/diesel vehicles

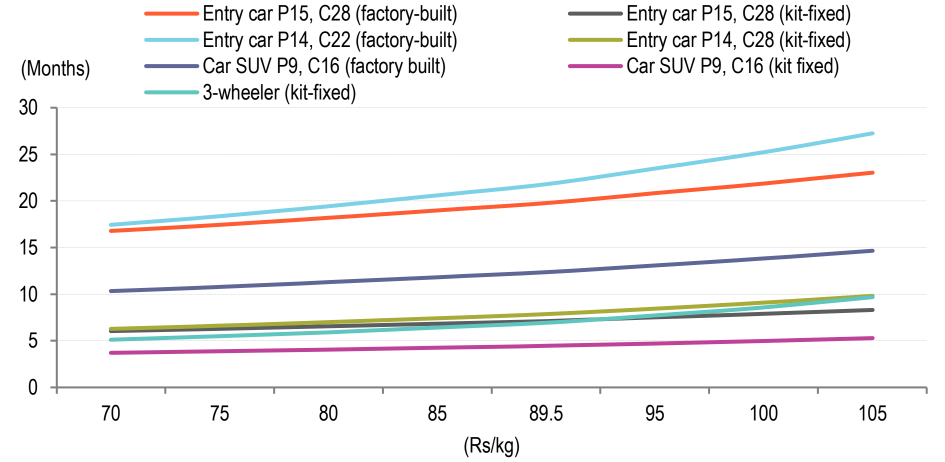
Parameters	Maruti Swift		Maruti Swift		Car SUV		3-wheeler	
	Petrol	CNG	Petrol	CNG	Petrol	CNG	Petrol	CNG
Fuel efficiency (km/l or km/kg of fuel)	**15**	**28**	**14**	**22**	**9**	**16**	**28**	**38**
Cost of fuel (Rs/l or Rs/kg)	106.3	89.5	106.3	89.5	106.3	89.5	106.3	89.5
Effective fuel cost (Rs/km)	**7.1**	**3.2**	**7.6**	**4.1**	**11.8**	**5.6**	**3.8**	**2.4**
Daily use (km)	50	50	50	50	50	50	80	80
Monthly use (km)	1300	1300	1300	1300	1300	1300	2400	2400
Monthly fuel costs (Rs '000)	9.2	4.2	9.9	5.3	15.4	7.3	9.1	5.7
Monthly savings for CNG vehicle (Rs '000)	**-**	**5.1**	**-**	**4.6**	**-**	**8.1**	**-**	**3.5**
Factory built	-	-	-	-	-	-	-	-
Incremental capital cost (Rs '000)	-	100	-	100	-	100	-	-
Payback period (months)	**-**	**19.8**	**-**	**21.8**	**-**	**12.4**	**-**	**-**
External kit	-	-	-		-		-	
Incremental capital cost (Rs '000)	-	36	-	36	-	36	-	24
Payback period (months)	-	7.1	-	7.9	-	4.5	-	6.9

Source: Kirit Parikh Committee Report, Maruti, BOBCAPS Research

CNG price cut would marginally lower payback period

For a Maruti Swift car, assuming on-road fuel efficiency of 14km/l for petrol and 22km/kg for CNG, the payback period would reduce to ~19 months if the CNG price is brought down from Rs 89.5/kg to Rs 80/kg in line with implementation of the Parikh Committee recommendations and without any change in other fuel prices.

Fig 26 – Sensitivity of payback period to change in CNG price



Source: BOBCAPS Research | P is fuel efficiency of Petrol vehicle in km/l and C is fuel efficiency of CNG vehicle in Rs/kg

Similar payback period in Mumbai and Delhi

While CNG in Mumbai (Rs 89.5/kg) is priced higher than that in the National Capital Territory of Delhi (Rs 79.5/kg), the payback period is still broadly similar as petrol and diesel prices in Mumbai are also higher than the NCT.

Cost of ownership analysis also confirms CNG advantage

Based on a more comprehensive analysis that compares total cost of ownership (TCO) including upfront capex, annual running and maintenance costs, across select mid-range car models, we highlight that a CNG car is more economical than electric, petrol, diesel and auto LPG at the current CNG price of Rs 89.5/kg. This analysis is based on Crisil M&A Consulting estimates and assumes lower vehicle usage of 1,000km per month against 1,300km in the previous analysis.

- While fuel cost competitiveness of CNG vehicles is 75% worse than EVs, the total cost of ownership is 4% better for CNG vehicles in absolute terms and 14% better in present value (PV) terms.
- Against a petrol vehicle, the fuel competitiveness of CNG is 59% better while TCO-absolute and TCO-PV are 13% and 8% better respectively.
- Against a diesel vehicle, CNG vehicles offer an advantage of 10% on fuel and 17% on both TCO-absolute and TCO-PV.
- Should CNG prices drop to Rs 80/kg without any change in other fuel prices, the TCO-PV of a CNG vehicle would be 17%/10%/20% better than EV/petrol/diesel.

Fig 27 – Comparison of total cost of ownership

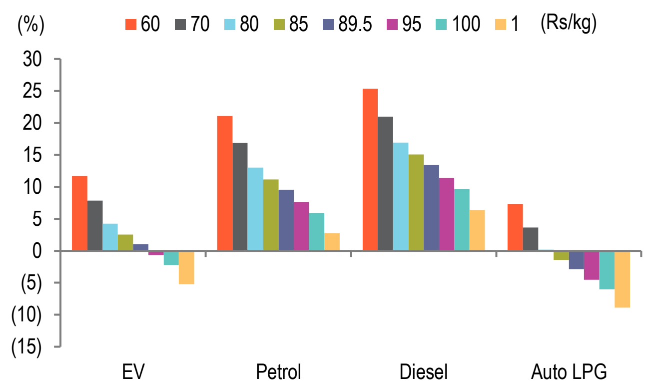
Parameters	EV	Petrol	Diesel	Auto LPG	CNG
Fuel competitiveness					
Cost of fuel	7.5	106.3	94.3	63.1	89.5
Unit of cost of fuel	Rs/kWh	Rs/l	Rs/l	Rs/kg	Rs/kg
Fuel efficiency (km/unit fuel)	7.4	16.5	21.0	14.6	22.0
Effective fuel cost (Rs/km)	1.0	6.5	4.5	4.3	4.1
CNG vehicle fuel competitiveness (%)	**(75)**	**59**	**10**	**6**	**0**
Analysing TCO assuming 12,000km annual run and 8 years of useful life					
On road price (Rs mn)	1.3	0.9	1.1	0.9	0.9
Annual fuel cost (Rs '000)	12.2	77.4	53.9	51.8	48.8
Annual maintenance cost (Rs '000)	5.0	6.0	9.0	6.0	7.5
Salvage value @8% of vehicle value (Rs mn)	0.1	0.1	0.1	0.1	0.1
TCO – Absolute (Rs mn)					
Total cost of ownership (Rs mn)	1.4	1.5	1.5	1.3	1.3
CNG vehicle competitiveness (%)	**4**	**13**	**17**	**0**	**0**
TCO – PV (Rs mn)					
Total cost of ownership (Rs mn)	1.4	1.3	1.4	1.2	1.2
CNG vehicle competitiveness (%)	**14**	**8**	**17**	**(1)**	**0**

Source: IRM Energy DRHP, CRISIL M&A Consulting, BOBCAPS Research | Notes: (1) Present petrol, diesel and CNG prices in Mumbai. (2) Average price of hatchbacks such as Tata's Nexon, Tiago, Tigor and Maruti's Brezza considered. CNG retrofit cost Rs 55,000 considered over the on-road petrol price. (3) Price of LPG kit: Rs 40,000. Fuel efficiency considered based on Maruti Suzuki WagonR Duo model. (4) Salvage value: 8% of on-road price for all categories

CNG car competitive even assuming lower salvage value

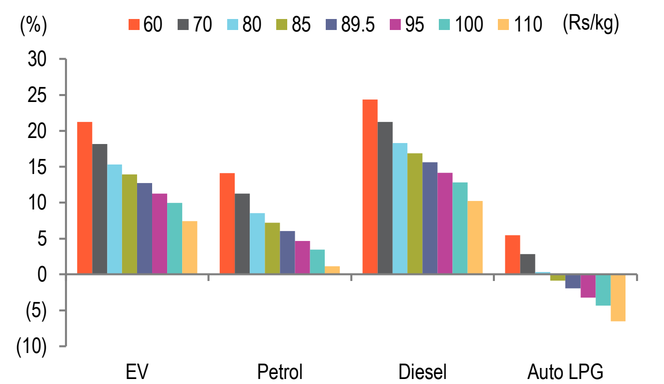
If we assume the salvage value of a CNG vehicle at 4% of on-road price as against 8% for other vehicles and assume reduction in CNG price to Rs 80/kg, then TCO-PV of a CNG vehicle would be 13%/6%/16% better than EV/petrol/diesel.

Fig 28 – Sensitivity of TCO (absolute) of CNG vehicle to change in CNG price



Source: BOBCAPS Research

Fig 29 – Sensitivity of TCO (PV) of CNG vehicle to change in CNG price



Source: BOBCAPS Research

Industry outlook

Strong policy support for CGD sector

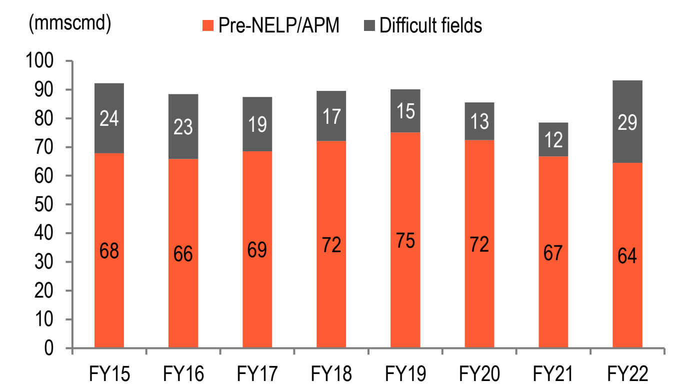
Given the government's goal of increasing the share of natural gas in the primary energy mix to 15% by 2030 from the existing 6.3%, the Petroleum and Natural Gas Regulatory Board (PNGRB) has allocated 295 GAs over 2008-22. These cover ~98% of India's population and 88% of the country's geographical area, spread over ~630 districts in 28 states and union territories. CGD companies in turn have undertaken to connect 123mn households and install 17,700 CNG stations under Minimum Work Programme commitments. It is, therefore, important that the competitiveness of the CGD sector is maintained to achieve these objectives.

Higher gas share allocated to CGD…

The Indian government has supported growth of the domestic PNG and CNG segments by allocating them a share of pre-NELP (New Exploration Licensing Policy) fields – i.e. onshore fields owned by ONGC and Oil India (OINL) which were awarded before the implementation of NELP, also termed as APM gas.

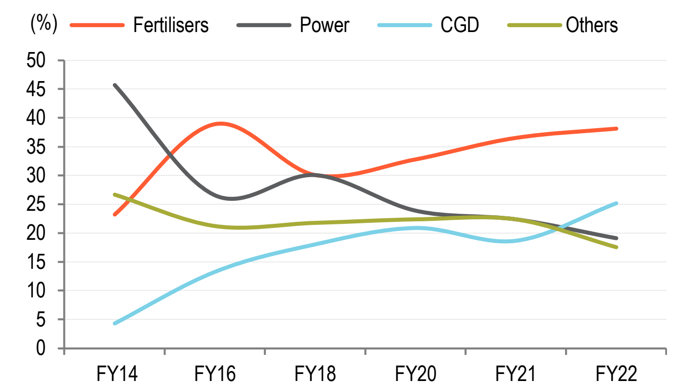
To counter the consistent decline in matured pre-NELP fields, the government has been increasing the share of the CGD sector in gas supply at the expense of other users. While pre-NELP or APM gas availability has contracted from ~68mmscmd in FY15 to ~64mmscmd in FY22, allocation to the CGD segment has jumped to ~22mmscmd or 25.2% share of the total vs. 13.3% in FY16. (Source: IRM Energy DRHP)

Fig 30 – Decline in APM gas production…



Source: PPAC, IRM Energy DRHP, BOBCAPS Research

Fig 31 – …but allocation to CGD segment has increased



Source: PPAC, IRM Energy DRHP, BOBCAPS Research

…but increased APM gas price has impacted CGD margins

With the rise in international gas prices driven by geopolitical tensions, the price of Indian APM gas has also increased given its linkage to the international benchmarks of producer countries. However, prices of competing liquid fuels have been kept constant by oil marketing companies, narrowing the price advantage of CNG over petrol and diesel. This has been an unintended fallout of the subsidy on liquid fuels. We believe the government would need to adjust its policy to correct this anomaly.

We expect the international gas market to remain tight over FY22-FY25 given that Europe will continue to reduce its dependence on Russian gas by buying LNG cargo.

Thus, it is imperative for the Indian government to look at alternatives to maintain the viability of CNG against competing liquid fuels.

Parikh Committee recommendations could support CGD

In Sep'22, the Indian government constituted an expert committee under former planning commission member Kirit S Parikh to examine the issues of domestic natural gas pricing regimes; ensure fair prices for end-consumers; suggest market-oriented, transparent and reliable pricing regimes for India's long-term vision of ensuring a gas-based economy; and to review existing natural gas pricing regimes.

Key recommendations from the Parikh Committee report are:

- **Link gas price for APM fields of ONGC and OINL to 10% of the import price of India's crude basket** with a dynamic ceiling and fixed floor – first ceiling at US$ 6.5/MMbtu and a subsequent increase of US$ 0.5/MMbtu annually, and floor of US$ 4/MMbtu
- **Fix gas price for other operators under different price regimes** at declared APM price without any floor and ceiling
- **Provide incentives for additional production from nomination blocks** to ONGC/OINL by way of a 20% premium over and above the APM prices for a new well or well intervention
- **Full deregulation by 1 Jan 2027** of APM and other gas prices
- **Retain ceiling price** for the time being and full deregulation by 1 Jan 2026 for deep water, ultra-deep water, and high-pressure high-temperature areas
- **Monitor consumer prices** with detailed breakup by PPAC (Petroleum Planning & Analysis Cell) to ensure that the benefit of decreased prices is passed along
- **Develop a localised price discovery (India price)** mechanism for development of the gas market to prepare for the decontrolled regime
- **Continue the current APM gas allocation policy with the highest priority given to CNG (transport) and PNG (domestic) sectors.** To reduce the impact on other sectors from the increased allocation to CGD companies, subsidise fertiliser manufacturers based on the fertiliser sale price fixed by the government and free those power producers from take-or-pay obligations who were promised priority allocation of gas and whose cost of generation has become uncompetitive due to significant reduction in cost of renewable power.
- **Bring gas under GST regime** to ensure a lower tax burden. To obtain consensus amongst states, compensate states for any loss in revenue for five years, and till consensus is secured, apply a moderate central excise duty rate on CNG.
- **Introduce a subsidy mechanism for CGD companies.** Separately, but not as an explicit recommendation, the report discusses a subsidy mechanism for CGD players, acknowledging the industry's requirement of selling CNG and domestic PNG at affordable prices. It considers a 20% discount to LPG price for PNG consumers and 20% discount to CNG consumers as a good incentive to promote the use of gas.

Valuation methodology

Forecasts

We expect MAHGL's EBITDA to grow from Rs 9.2bn in FY22 to Rs 13.5bn in FY25, a 13.4% CAGR, driven by a 11.1% CAGR in volumes over this period to 4.1mmscmd and modest margin recovery. Our EBITDA forecasts are broadly in line with consensus.

Margin drivers

We model for EBITDA margin in the region of ~Rs 9/scm over FY24-FY25, in line with the average seen over FY17-FY22.

- We assume that the government implements the Parekh Committee recommendations wherein APM gas price is set at US$ 6.5/MMbtu in FY24 and increases by US$ 0.5/MMbtu in FY25.
- The spot LNG market is forecast to remain tight till FY25 until the next wave of LNG terminals comes through.
- We expect availability of APM gas for the priority sector to range at 85-90% over FY23-FY25.

Growth drivers

- CNG has been the key driver of growth for IGL. With APM gas price expected to reduce, CNG competitiveness will improve against petrol and diesel. We expect CNG penetration in cars and commercial vehicles to continue and to coexist with EVs over the next 5-10 years.
- Commercial/domestic PNG growth is projected to continue in high single digits driven by deepening penetration in GA1 (Mumbai) and further expansion in GA2 (Thane Urban).
- Industrial PNG growth would be primarily driven by network expansion in Raigarh (GA3).

Fig 32 – Growth forecasts

(Rs bn)	Actuals	Forecasts			Consensus			Delta to Consensus (%)		
	FY22	FY23E	FY24E	FY25E	FY23E	FY24E	FY25E	FY23E	FY24E	FY25E
Revenue	35,312	64,407	61,898	68,332	58,217	58,548	58,326	10.6	5.7	17.2
EBITDA	9,243	10,853	12,597	13,495	10,693	12,533	13,433	1.5	0.5	0.5
EBITDA growth YoY (%)	(1.0)	17.4	16.1	7.1	15.7	17.2	7.2	-	-	-
Net income	5,970	6,954	7,995	8,433	6,900	8,125	8,674	0.8	(1.6)	(2.8)

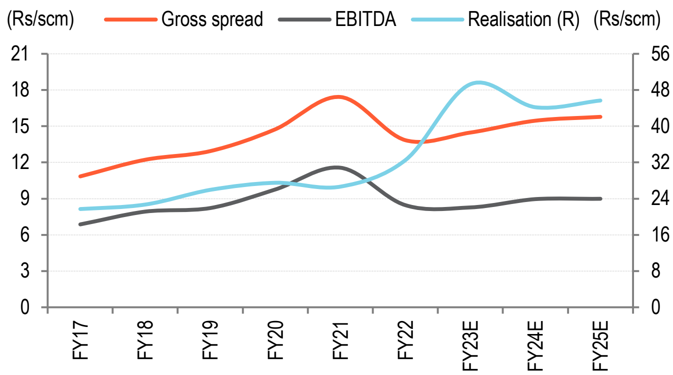
Source: Bloomberg, BOBCAPS Research

Fig 33 – Key business drivers and assumptions

	FY22	FY23E	FY24E	FY25E	FY22-25E CAGR (%)
Volumes (mmscmd)					
CNG	2.1	2.7	2.8	3.0	-
D-PNG	0.5	0.5	0.5	0.6	-
I+C	0.42	0.46	0.50	0.55	-
Total	**3.0**	**3.6**	**3.8**	**4.1**	**-**
Volume growth (%)					
CNG	49.4	25.7	6.5	6.5	12.6
D-PNG	0.4	2.8	7.1	7.2	5.7
I+C	26.2	8.9	8.7	10.8	9.4
Total	**35.6**	**19.8**	**6.9**	**7.2**	**11.1**
Volume mix (%)					
CNG	70.5	74.0	73.7	73.3	-
D-PNG	15.6	13.3	13.4	13.4	-
I+C	14.0	12.7	12.9	13.3	-
Natural gas	100.0	100.0	100.0	100.0	-
Total	**70.5**	**74.0**	**73.7**	**73.3**	**-**
Profitability indicator (Rs/scm)					
Revenue	32.5	49.3	44.2	45.7	-
Gross spread	13.8	14.5	15.4	15.8	-
EBITDA	8.4	8.3	9.0	9.0	-
PAT	5.5	5.3	5.7	5.6	-
ROE	17.5	18.4	19.2	18.4	-
Key assumptions					
USD/INR exchange rate	74.5	80.5	82.5	84.2	-
APM gas price (US$/MMbtu)	2.3	7.3	6.5	7.0	-
Gas price ceiling (US$/MMbtu)	4.9	10.8	11.4	11.2	-
LNG contract price (US$/MMbtu)	11.7	17.3	14.2	11.4	-
LNG sport price (US$/MMbtu)	23.2	33.5	30.0	25.0	-
Priority sector gas bucket (US$/MMbtu)	3.0	9.2	7.3	7.9	-
Industrials and commercials gas bucket (US$/MMbtu)	19.4	22.1	14.9	12.7	-

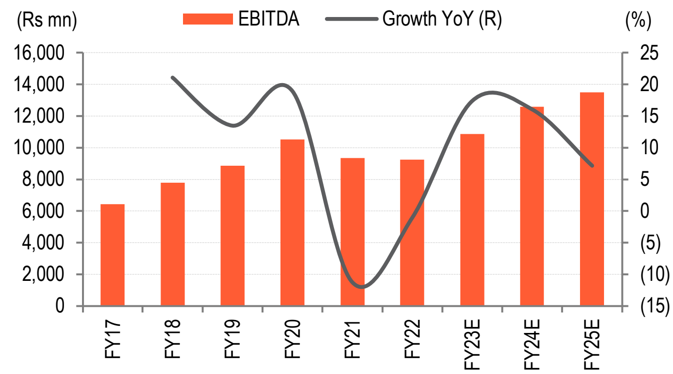
Source: Company, BOBCAPS Research

Fig 34 – Expect EBITDA margin to recover to Rs 9/scm over FY24E-FY25E



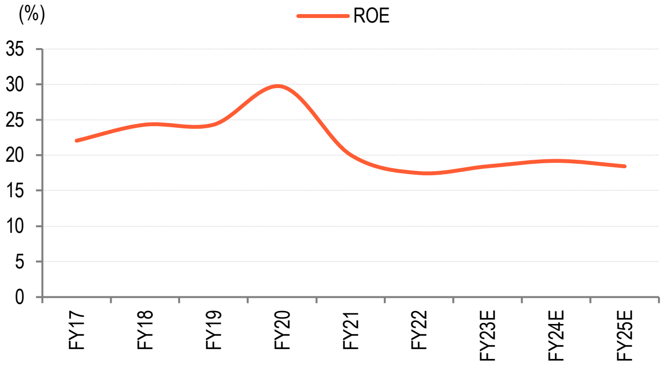
Source: Company, BOBCAPS Research

Fig 35 – Expect EBITDA CAGR of 13.4% (FY22-FY25E) led by 11.1% CAGR in volumes and modest margin recovery



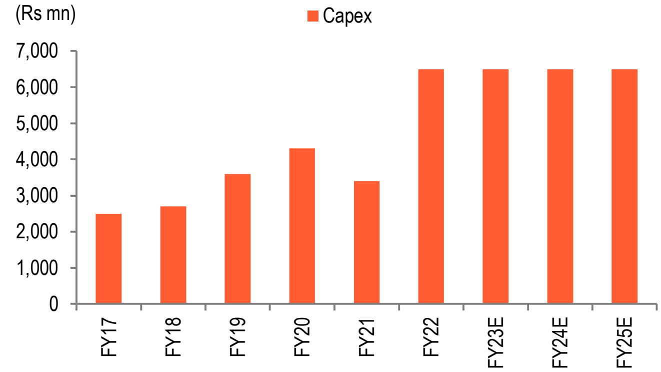
Source: Company, BOBCAPS Research

Fig 36 – ROE to settle at healthy range of 18-19% over FY24-FY25E



Source: Company, BOBCAPS Research

Fig 37 – Capex estimated at Rs 19.5bn through to FY25 in line with our modest volume growth forecast



Source: Company, BOBCAPS Research

DCF-based TP of Rs 1,030; BUY

We have a DCF-based TP of Rs 1,030 for MAHGL, which implies an FY24E P/E of 12.7x. This is marginally higher than the three/five-year mean 1Y forward P/E of 11.4x/12.4x on Bloomberg consensus estimates. Our target price implies 19% upside and hence we rate MAHGL as BUY. Key assumptions for our DCF-based fair value are cost of equity of 11%, terminal growth of 2.5%, volume growth CAGR of ~5% and average EBITDA margin of Rs 8.4/scm over our explicit and semi-explicit forecast period of FY23-FY33.

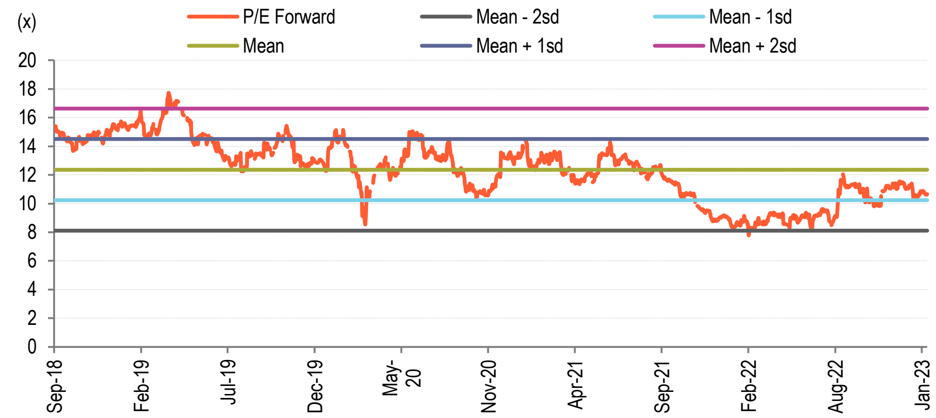
Fig 38 – DCF-based fair value

Valuation parameters	Value (Rs mn)
PV of FCF FY24-34	40,140
PV of terminal value	38,682
Enterprise Value	78,822
Less: Net Debt FY23	(15,042)
Equity value Mar'23	**93,865**
NPV Mar'23 (Rs)	**950**
NPV Dec'23 (Rs)	**1,029**
Target price as on Dec'23 (Rs) (rounded off to nearest Rs 5)	**1,030**

Source: BOBCAPS Research

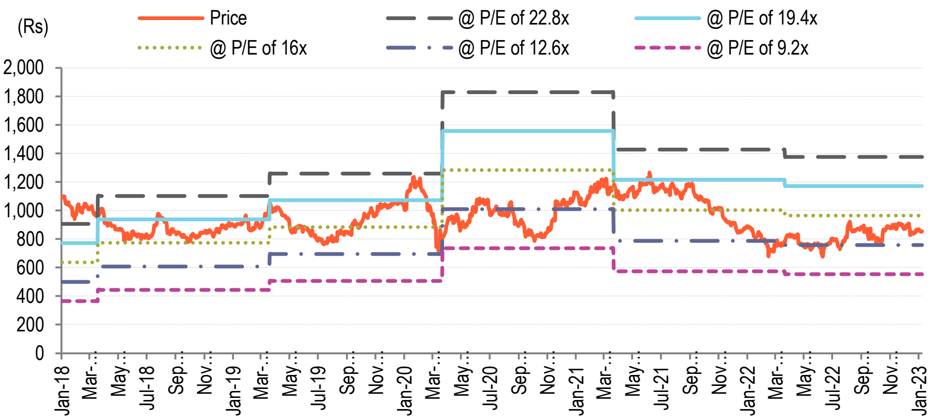
Over the past four years (i.e. since Bloomberg data has been available for the stock), MAHGL has traded at an average one-year forward P/E of 12.4x with a one standard-deviation range of 10.2-14.5x based on Bloomberg consensus. Over the past five years, the stock has traded at an average LTM P/E of 16x with a one standard deviation range of 12.6-19.4x based on actual earnings.

Fig 39 – MAHGL has traded at an average 1Y forward P/E of 12.4x



Source: Bloomberg, BOBCAPS Research

Fig 40 – MAHGL has traded at an average LTM P/E of 16x



Source: Bloomberg, BOBCAPS Research

Key risks

Key downside risks to our estimates are:

- Lower-than-expected margins arising from an inability to pass on higher gas purchase cost to consumers. We assume that the government implements recommendations of the Kirit Parekh Committee and lowers APM gas price to US$ 6.5/MMbtu in FY24.
- Material reduction in taxation structure on petrol and diesel, which could lower competitiveness of CNG and result in lower margins for MAHGL
- Slower volume growth than our assumptions, with faster penetration of EVs than expected
- Adverse PNGRB or government regulations that could impact our margin or volume outlook
- Adverse judgement on Uran-Trombay pipeline tariff dispute with contingent liability at Rs 3.3bn

Sector recommendation snapshot

Company	Ticker	Market Cap (US$ bn)	Price (Rs)	Target (Rs)	Rating
Bharat Petroleum Corp	BPCL IN	9.2	346	450	BUY
GAIL	GAIL IN	5.4	97	160	BUY
Hindustan Petroleum Corp	HPCL IN	4.2	243	410	BUY
Indian Oil Corp	IOCL IN	9.5	82	150	BUY
Indraprastha Gas	IGL IN	3.6	422	520	BUY
Mahanagar Gas	MAHGL IN	1.0	863	1,030	BUY
Petronet LNG	PLNG IN	4.1	222	330	BUY
Reliance Industries	RIL IN	206.0	2,475	2,670	HOLD

Source: BOBCAPS Research, NSE | Price as of 18 Jan 2023

Glossary

Glossary of Abbreviations	
APM: Administered Price Mechanism	**I+C:** Industrial + Commercial
CGD: City Gas Distribution	**LNG:** Liquefied Natural Gas
CNG: Compressed Natural Gas	**LPG:** Liquefied Petroleum Gas
D-PNG: Domestic Piped Natural Gas	**NELP:** New Exploration Licensing Policy
EV: Electric Vehicles	**PNG:** Piped Natural Gas
GST: Goods & Services Tax	**PPAC:** Petroleum Planning & Analysis Cell

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Financials

Income Statement

Y/E 31 Mar (Rs mn)	FY21A	FY22A	FY23E	FY24E	FY25E
Total revenue	**21,525**	**35,602**	**64,697**	**62,188**	**68,622**
EBITDA	9,340	9,243	10,853	12,597	13,495
Depreciation	(1,737)	(1,963)	(2,270)	(2,589)	(2,929)
EBIT	7,603	7,281	8,582	10,008	10,566
Net interest inc./(exp.)	(72)	(75)	(78)	(81)	(85)
Other inc./(exp.)	805	857	793	762	792
Exceptional items	0	0	0	0	0
EBT	8,336	8,063	9,297	10,689	11,273
Income taxes	(2,140)	(2,093)	(2,343)	(2,694)	(2,841)
Extraordinary items	0	0	0	0	0
Min. int./Inc. from assoc.	0	0	0	0	0
Reported net profit	**6,196**	**5,970**	**6,954**	**7,995**	**8,433**
Adjustments	0	0	0	0	0
Adjusted net profit	**6,196**	**5,970**	**6,954**	**7,995**	**8,433**

Balance Sheet

Y/E 31 Mar (Rs mn)	FY21A	FY22A	FY23E	FY24E	FY25E
Accounts payables	1,559	2,719	3,757	3,880	4,306
Other current liabilities	9,434	10,458	11,801	11,549	12,083
Provisions	350	356	369	326	364
Debt funds	573	824	824	824	824
Other liabilities	1,773	2,008	2,147	2,308	2,477
Equity capital	988	988	988	988	988
Reserves & surplus	31,336	34,985	38,603	42,762	46,754
Shareholders' fund	32,324	35,973	39,591	43,750	47,742
Total liab. and equities	**46,011**	**52,338**	**58,490**	**62,637**	**67,795**
Cash and cash eq.	5,119	4,652	4,984	5,025	6,206
Accounts receivables	1,275	1,841	3,176	3,392	3,744
Inventories	222	275	529	509	562
Other current assets	1,353	1,628	1,628	1,628	1,628
Investments	10,250	10,883	10,883	10,883	10,883
Net fixed assets	21,637	26,085	28,913	31,842	34,726
CWIP	5,603	6,159	7,562	8,543	9,230
Intangible assets	57	52	52	52	52
Deferred tax assets, net	497	763	763	763	763
Other assets	0	0	0	0	0
Total assets	**46,011**	**52,338**	**58,490**	**62,637**	**67,795**

Cash Flows

Y/E 31 Mar (Rs mn)	FY21A	FY22A	FY23E	FY24E	FY25E
Cash flow from operations	**8,108**	**8,537**	**9,376**	**9,615**	**11,331**
Capital expenditures	(3,653)	(6,893)	(6,500)	(6,500)	(6,500)
Change in investments	965	(633)	0	0	0
Other investing cash flows	0	0	0	0	0
Cash flow from investing	**(2,688)**	**(7,526)**	**(6,500)**	**(6,500)**	**(6,500)**
Equities issued/Others	0	0	0	0	0
Debt raised/repaid	83	251	0	0	0
Interest expenses	0	0	0	0	0
Dividends paid	(2,272)	(2,420)	(3,336)	(3,836)	(4,440)
Other financing cash flows	(410)	691	793	762	792
Cash flow from financing	**(2,599)**	**(1,478)**	**(2,544)**	**(3,074)**	**(3,649)**
Chg in cash & cash eq.	**2,821**	**(467)**	**332**	**41**	**1,182**
Closing cash & cash eq.	**5,116**	**4,652**	**4,984**	**5,025**	**6,206**

Per Share

Y/E 31 Mar (Rs)	FY21A	FY22A	FY23E	FY24E	FY25E
Reported EPS	62.7	60.4	70.4	80.9	85.4
Adjusted EPS	62.7	60.4	70.4	80.9	85.4
Dividend per share	23.0	24.5	28.9	33.2	38.4
Book value per share	327.2	364.2	400.8	442.9	483.3

Valuations Ratios

Y/E 31 Mar (x)	FY21A	FY22A	FY23E	FY24E	FY25E
EV/Sales	3.8	2.3	1.3	1.3	1.2
EV/EBITDA	8.9	8.9	7.5	6.4	6.0
Adjusted P/E	13.8	14.3	12.3	10.7	10.1
P/BV	2.6	2.4	2.2	1.9	1.8

DuPont Analysis

Y/E 31 Mar (%)	FY21A	FY22A	FY23E	FY24E	FY25E
Tax burden (Net profit/PBT)	74.3	74.0	74.8	74.8	74.8
Interest burden (PBT/EBIT)	109.6	110.7	108.3	106.8	106.7
EBIT margin (EBIT/Revenue)	35.3	20.4	13.3	16.1	15.4
Asset turnover (Rev./Avg TA)	49.3	72.4	116.8	102.7	105.2
Leverage (Avg TA/Avg Equity)	1.4	1.4	1.5	1.5	1.4
Adjusted ROAE	20.0	17.5	18.4	19.2	18.4

Ratio Analysis

Y/E 31 Mar	FY21A	FY22A	FY23E	FY24E	FY25E
YoY growth (%)					
Revenue	(27.6)	65.4	81.7	(3.9)	10.3
EBITDA	(11.3)	(1.0)	17.4	16.1	7.1
Adjusted EPS	(21.9)	(3.7)	16.5	15.0	5.5
Profitability & Return ratios (%)					
EBITDA margin	43.4	26.0	16.8	20.3	19.7
EBIT margin	35.3	20.4	13.3	16.1	15.4
Adjusted profit margin	28.8	16.8	10.7	12.9	12.3
Adjusted ROAE	20.0	17.5	18.4	19.2	18.4
ROCE	18.0	15.5	16.6	17.6	17.0
Working capital days (days)					
Receivables	17	16	14	19	19
Inventory	10	4	3	5	4
Payables	43	30	22	28	27
Ratios (x)					
Gross asset turnover	0.8	1.1	1.7	1.4	1.4
Current ratio	0.7	0.6	0.6	0.7	0.7
Net interest coverage ratio	105.7	96.7	109.6	122.9	124.7
Adjusted debt/equity	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)

Source: Company, BOBCAPS Research | Note: TA = Total Assets

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Recommendation scale: Recommendations and Absolute returns (%) over 12 months

BUY – Expected return >+15%

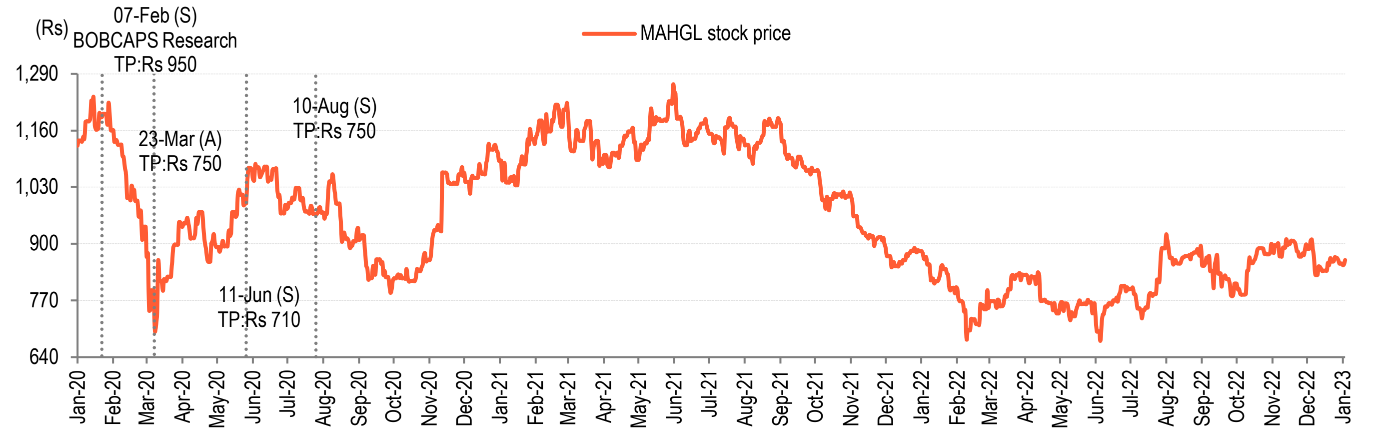
HOLD – Expected return from -6% to +15%

SELL – Expected return <-6%

Note: Recommendation structure changed with effect from 21 June 2021

Our recommendation scale does not factor in short-term stock price volatility related to market fluctuations. Thus, our recommendations may not always be strictly in line with the recommendation scale as shown above.

Ratings and Target Price (3-year history): MAHANAGAR GAS (MAHGL IN)



B – Buy, H – Hold, S – Sell, A – Add, R – Reduce

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