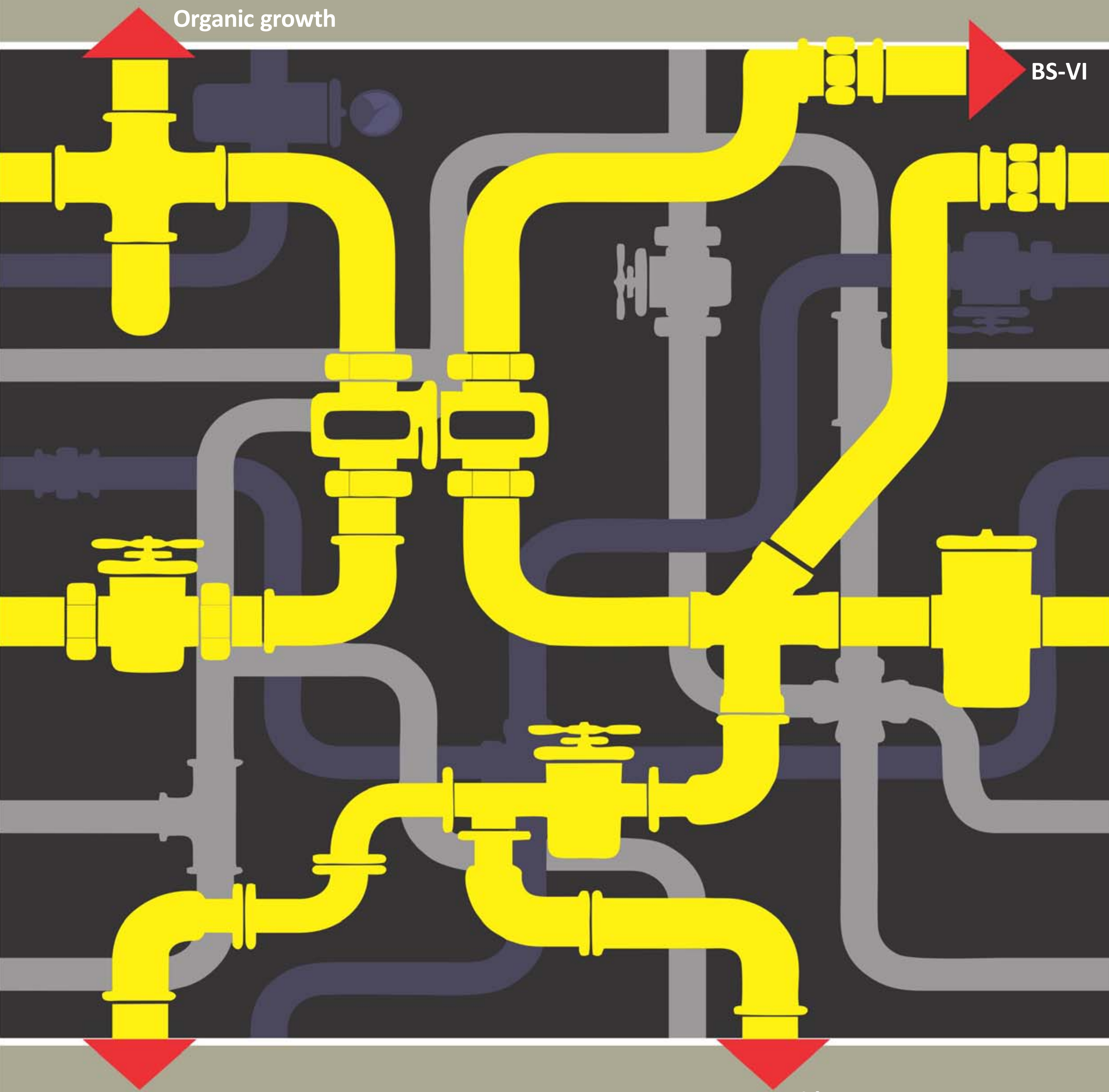
Thematic | 27 November 2017

Oil & Gas



Expanding horizons

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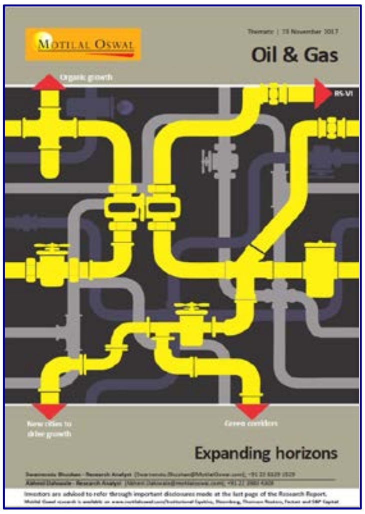
Oil & Gas



Expanding horizons

Green corridors, BS-VI, and new cities to drive growth

- **The first wave of volume growth came in when the government granted top priority to city gas distribution companies (CGDs) for allocation of cheaper domestic gas in 2014. The second wave came with increased emphasis on cutting vehicular pollution through restrictions on diesel vehicles and plying of vehicles with odd/even registration plates on alternate days.**
- **We believe that green corridors, intercity travel, inorganic growth through new areas, and residential usage would drive growth of CGDs, going forward. With the implementation of BS-VI emission norms, economics would be even more against diesel usage and would aid volume growth for IGL, MAHGL and GUJGA.**
- **Global peers trade at 10.5x FY19E EV/EBITDA and 17.3x FY19E P/E, while Indian CGDs trade at 13.5x FY19E EV/EBITDA and 24.4x FY19E P/E. Indian CGDs remain in a sweet spot considering increased emphasis on usage of gas, firm supply of cheaper domestic gas, and penetration of gas in newer geographies driving usage of CNG for intercity travel.**

Growing gas network to aid intercity travel on gas

- Growing access to CNG infrastructure is expected to boost consumption through intercity transportation/travel. With nearby areas like Jaipur, Chandigarh and Haridwar getting access to CNG infrastructure, Indraprastha Gas (IGL) is likely to witness increased gas sales for intercity travel.
- Mahanagar Gas (MAHGL) and Maharashtra Natural Gas (MNGL) have opened CNG outlets at the farthest ends of their territory on Mumbai-Pune Expressway. This should encourage travel on CNG between Mumbai and Pune.
- Though nuances of the policy on green corridors have not yet been clarified, we believe that as and when these are implemented, a new demand area of 3.2mmscmd (or ~30% of total CNG consumption in FY17) will be created.

BS-VI would make petrol/CNG vehicles much cheaper than diesel variants

- BS-VI aims at 25-70% reduction in emission of NOx and ~50% reduction in emission of total hydrocarbons (THCs) and NOx combined. For heavy commercial vehicles, BS-VI aims at ~90% reduction in NOx emission.
- The major thrust is on particulate matter (PM), where BS-VI aims at reduction of as much as 90%. Along with other vehicular design changes, compliance with these would require superior after-treatment packages.
- The modifications required for adherence to these requirements would increase the cost differential between diesel vehicles and their petrol/CNG versions.
- So far, the growth in CNG volumes has been primarily led by passenger vehicles. We believe the next phase of growth would be led more by commercial vehicles. Over FY17-22, we expect CNG volumes to grow at a CAGR of 11%+ for IGL and at a CAGR of 8% for MAHGL.

Oil & Gas

Expanding horizons

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Please click here for Video Link

Residential demand to grow at 10%; new areas to aid industrial demand

- The government has increased its thrust on penetration of PNG-residential. Against addition of 297k connections in FY17, we expect IGL, MAHGL and GUJGA to connect 375k new households in FY18.
- However, growth in PNG-commercial/industrial continues to lag. Threat from cheaper but dirtier alternatives like coal/fuel oil/petcoke remains. Bulk LPG and propane are also emerging as new threats in a few pockets.
- Supreme Court has recently banned usage of petcoke and fuel oil in the states of Rajasthan, UP and Haryana in addition to the existing ban in Delhi. Industrial demand from existing areas would remain muted. However, aided by newer areas, we expect ~13-15% growth in PNG-commercial/industrial for IGL and MAHGL and ~12% growth for GUJGA.

IGL deserves a higher multiple; upgrading to Buy

- India's gas consumption is expected to grow at 10% CAGR compared with 8% in China and 4% in the US over the next three years. RoEs of Indian CGDs are 6% higher than peers in China and 12% higher than peers in the US.
- Earlier, our belief was that IGL's volume would grow at 10%+ for 2-3 years and then taper off, as the market saturates. However, recent regulatory push, addition of new cities, and growing pipeline infrastructure make us believe that IGL's volume growth is far away from saturation, which we earlier believed would happen in 2-3 years. We increase our valuation multiple for IGL from 22x to 30x, given the 12%+ volume CAGR expected during FY17-22.
- We expect 13%/11%/11% volume growth for IGL in FY18/19/20. We expect EBITDA CAGR of 14% and EPS CAGR of 14% over FY17-20. Valuing the company at 30x average FY19-20E EPS, we arrive at a September 2018E target price of INR404, implying an upside of 29%. We upgrade the stock to **Buy**.

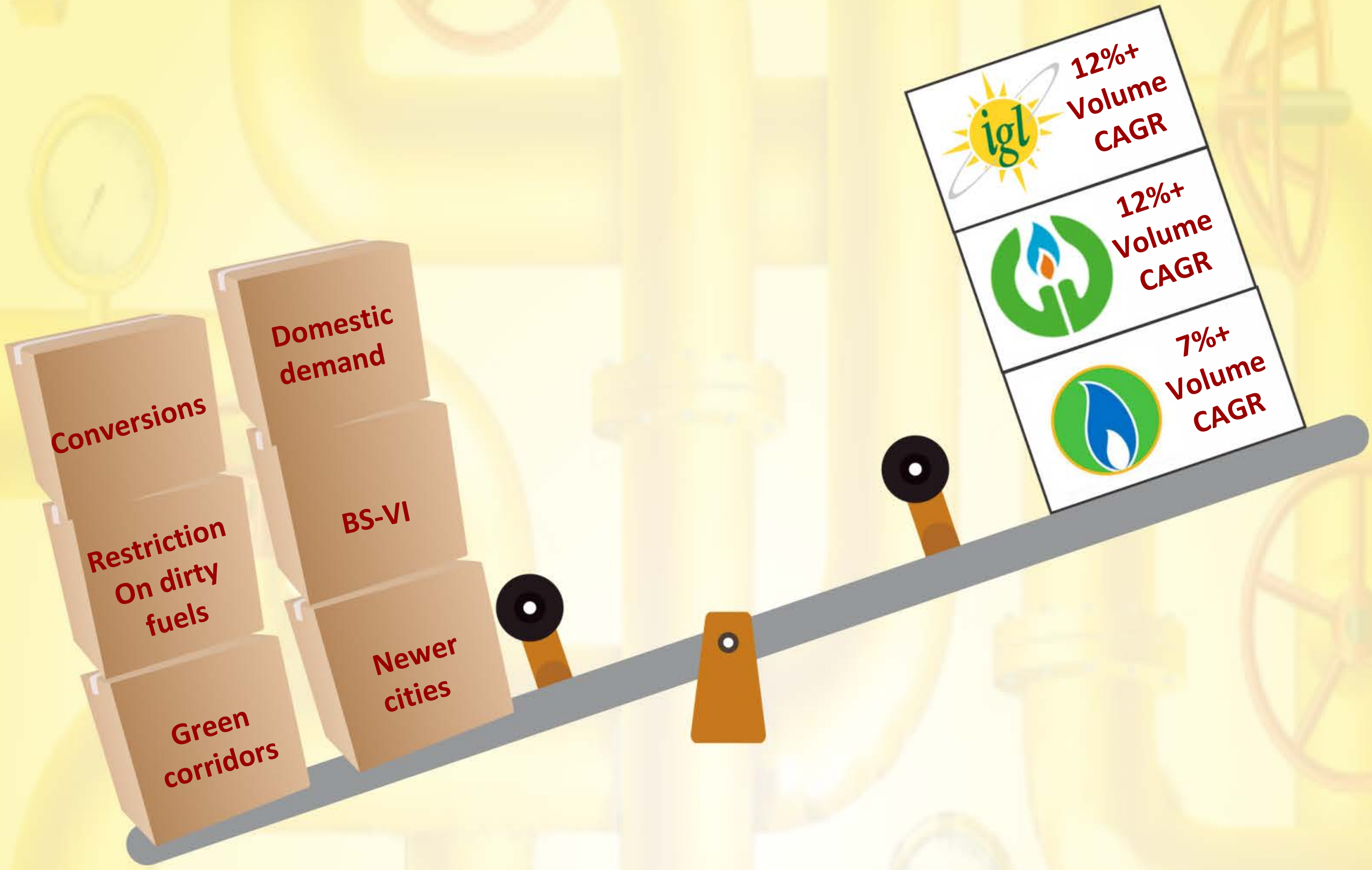
Initiating coverage on MAHGL, with a Neutral rating

- Unlike IGL, MAHGL does not enjoy regulatory push with respect to commercial vehicles. Its geographical location also would result in lower potential from intercity travel than for IGL.
- We expect 5%/6%/8% volume growth for MAHGL in FY18/19/20. We expect EBITDA CAGR of 7% and EPS CAGR of 7% over FY17-20. Valuing the company at 22.5x (25% discount to IGL) average FY19-20E EPS, we arrive at a September 2018E target price of INR1,219, implying an upside of 11%. We initiate coverage with a **Neutral** recommendation.

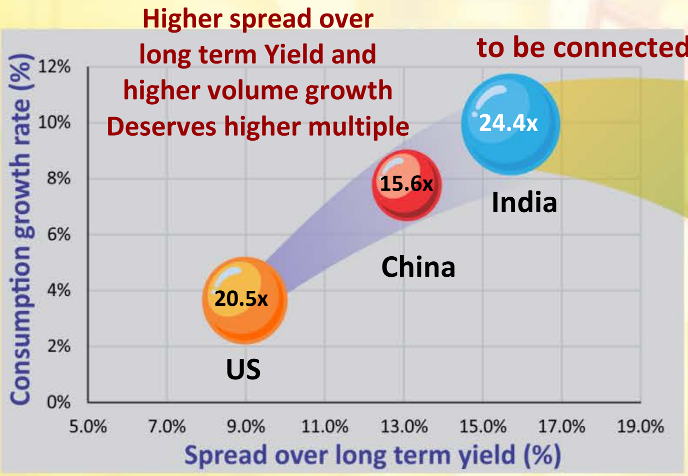
GUJGA – potential remains, despite volatility; upgrading to Buy

- We expect 14%/13%/12% volume growth for GUJGA in FY18/19/20. EBITDA would grow at a CAGR of 20% and EPS at a CAGR of 40% over FY17-20.
- Higher exposure to the industrial segment and competition from cheaper alternatives results in high volatility in both volumes and EBITDA/scm. However, potential is high – Morbi alone, where the company sells ~2.7mmscmd, presents an opportunity for ~6mmscmd. We have already seen judiciary-led activism against polluting fuels in the National Capital Region (NCR). Any focus on pollution in Gujarat would result in sharp volume growth.
- We raise our P/E multiple from 15x to 27x, 10% discount to IGL and upgrade the stock to **Buy,** with a target price of INR1,011 (revised from INR721).

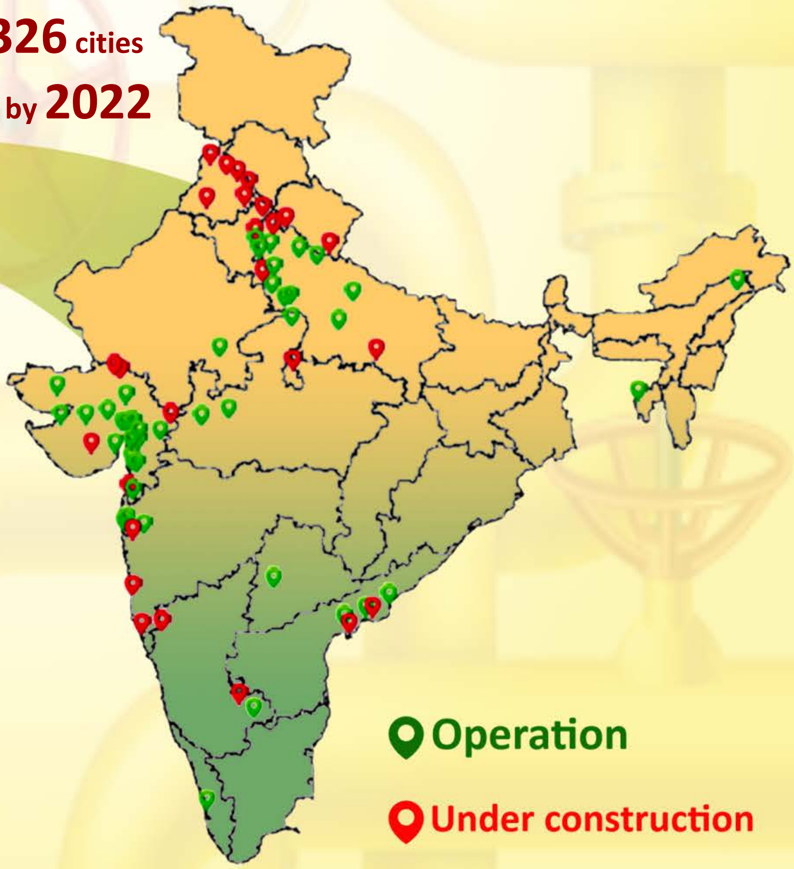
EXPANDING HORIZONS



Huge scope as **326** cities to be connected by **2022**



Size of the bubble represents forward PE

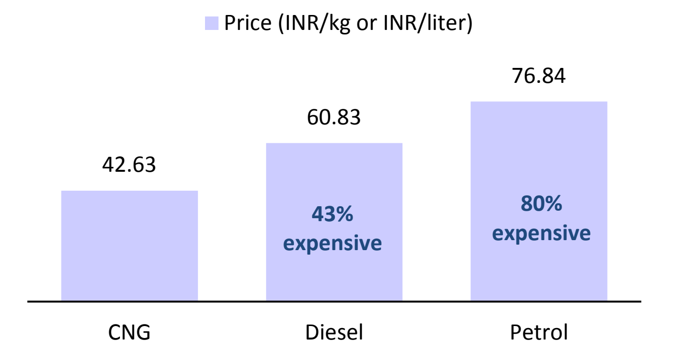


Expanding horizons

CGDs are well placed!

- **Growing gas networks across cities and green corridors would encourage inter-city CNG travel. The potential could be ~30% of current CNG consumption.**
- **BS-VI would increase the cost differential of diesel vehicles v/s petrol/CNG variants. We believe this would increase CNG adoption, especially in light commercial vehicles.**
- **Increased emphasis on curbing usage of cheaper and dirtier alternatives could propel PNG demand in the longer run.**
- **Indian city gas distributors (CGDs) offer much faster growth potential than global peers due to low penetration. Global peers trade at 17.3x FY19E EPS, with RoE of 12%, while Indian CGDs trade at 24.4x FY19E EPS, with RoE of 23%. We raise our valuation multiple for IGL from 22x to 30x and upgrade the stock to Buy with a target price of INR404. We initiate coverage of MAHGL with a target price of 1,219 at 22.5x FY19-20E EPS with a Neutral rating.**
- **We expect both volume and EBITDA/scm of Gujarat Gas to remain volatile. However, potential remains strong. We increase our PE multiple from 15x to 27x and raise our target price from INR712 to INR1,011. Upgrade to Buy.**

Exhibit 1: Good saving potential for vehicles



Source: Company, MOSL

Exhibit 2: Much cheaper than domestic LPG

Energy Cost for Cylinders	Number of Subsidized Cylinders			
(INR / Mn Kcal)	12	9	6	0
LPG	3101	3361	3621	4141
PNG	2873	2873	2873	2873
% Difference	7%	15%	21%	31%

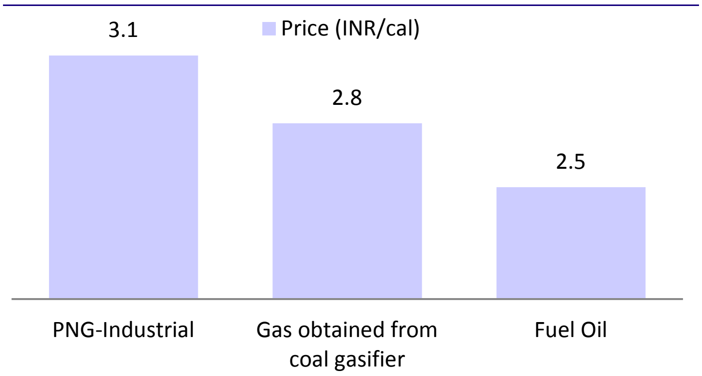
Source: Company, MOSL

Exhibit 3: Much cheaper alternative for commercial usage

Particulars	Unit	Price	Expensive vs PNG
PNG	INR/SCM	28.9	
Light Diesel Oil	INR/Ltr	32.9	14%
Commercial LPG	INR/Kg	54.9	37%

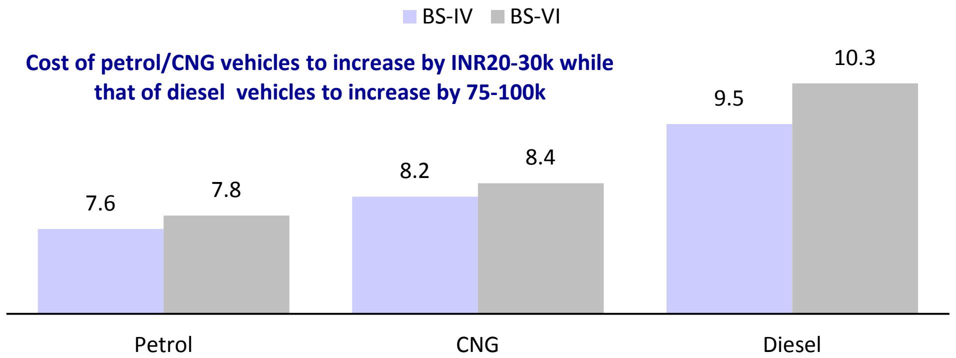
Source: Company, MOSL

Exhibit 4: However, difficult to compete with industrial fuels



Source: Company, MOSL

Exhibit 5: Increased cost differential of diesel vehicles v/s petrol/CNG versions



Source: autoportal.com, MOSL

Exhibit 6: Indian CGD companies v/s global peers

	Div yield (%)	ROE (%)	ROCE (%)	FY19 EV/EBITDA (x)	FY19 PE (x)
IGL	1%	20%	19.5%	15.3	26.3
MAHGL	2.5%	25.7%	25.5%	11.3	19.9
Gujarat Gas	0.5%	27%	25%	11.2	20.6
Global peers	~1%	12%	11%	10.5	17.3

Source: Bloomberg, MOSL

Use for inter-city travel could raise CNG demand by 30%

Access to gas in newer areas would aid inter-city CNG travel

- **Marketing guidelines for CNG along highways are still unclear, but access to gas in new cities could make CNG travel on highways feasible.**
- **New demand for 3.2mmscmd, or ~30% of total CNG consumption, could emerge.**
- **All CGDs would benefit; IGL would be the biggest beneficiary.**

Emergence of green corridors would aid inter-city travel on CNG

- The government had come up with draft guidelines in 2015 for marketing of CNG. These had stipulated opening of CNG outlets on highways by authorized entities. However, they were never notified and ambiguity with respect to allocation of gas for such outlets remains to be clarified. As a result, we hardly see any inter-city travel on CNG, currently.
- Niti Aayog envisages CGDs in 326 cities by 2022 as part of the latest India Action Plan, 2017. With more cities getting access to gas, the respective authorized entities can easily open CNG outlets on highways within their ambit. For example, MNGL and MAHGL have both opened retail outlets at the farthest ends of their allocated territories on the Mumbai-Pune Highway.
- Cities near Delhi (like Jaipur, Haridwar, and Chandigarh) are in the process of developing CGD networks. This should aid volume growth for IGL.
- On the upcoming Jagdishpur-Haldia pipeline, the government has mandated GAIL to develop seven CGDs. These would further aid inter-city travel.
- We believe that such inter-city travel even on eight identified green corridors can easily boost CNG sales by 3.2mmscmd or 30% of total CNG sales currently.
- CGD companies have also been steadily increasing their CNG retail outlets, which helps to give easier access to gas, and thus, boosts conversions.

Exhibit 7: Highway traffic could add 3.2mmscmd of demand

Corridor	Volume (mmscmd)^	Beneficiary companies
Delhi-Agra-Kanpur-Lucknow	0.5	IGL, Green Gas, CUGL
Karanpur-Moradabad-Kashipur-Rudrapur	0.1	IGL, Siti Gas
Vizag-Vijaywada	0.3	Bhagyanagar Gas
Delhi-Jaipur	0.6	IGL
Delhi-Chandigarh	0.4	IGL
Delhi-Haridwar	0.1	IGL
Allahabad-Kanpur-Varanasi	0.1	GAIL Gas, CUGL, IOC/Adani
Bengaluru-Mumbai-Pune	0.9	MAHGL, MNGL, GAIL Gas

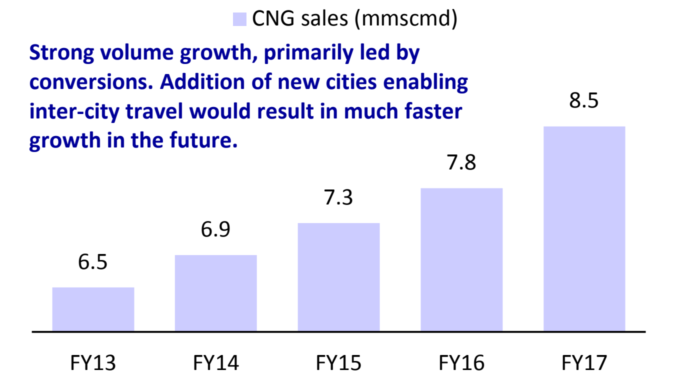
^Assuming 20% conversion

Source: Company, MOSL

Exhibit 8: Seven new cities for CGD development on Jagdishpur-Haldia pipeline

Source: Company, MOSL

Exhibit 9: Rising CNG consumption



Source: IOC, IGL, MOSL

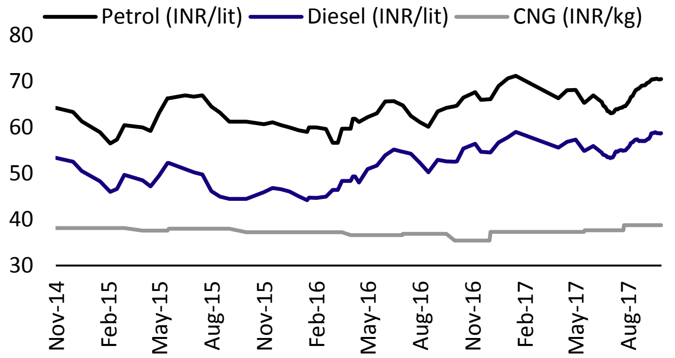
Exhibit 10: Savings model

	Petrol	CNG	Diesel
Purchase price (INR)	500,000	540,000	600,000
Fuel cost (INR/lit or kg)	70.5	38.8	58.7
Mileage (km/lit or kg)	15	21	18
Cost per km (INR)	4.7	1.8	3.3
Life of vehicle (yrs)	10	10	10
Avg distance per yr (km)	15,000	15,000	15,000
Running cost (INR)	704,600	276,857	489,167
Maintenance cost (INR/yr)	10,000	15,000	15,000
Salvage value after 10yrs	50,000	35,000	50,000
Lifetime cost of vehicle (INR)	1,254,600	931,857	1,189,167
Saving of CNG	26		22

All prices at Delhi

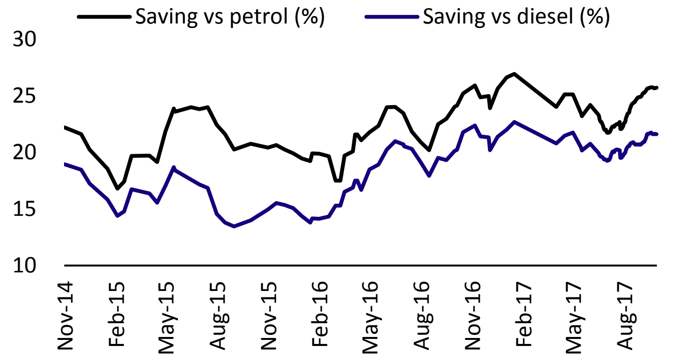
Source: IOC, IGL, MOSL

Exhibit 11: Petrol & diesel prices have been rising



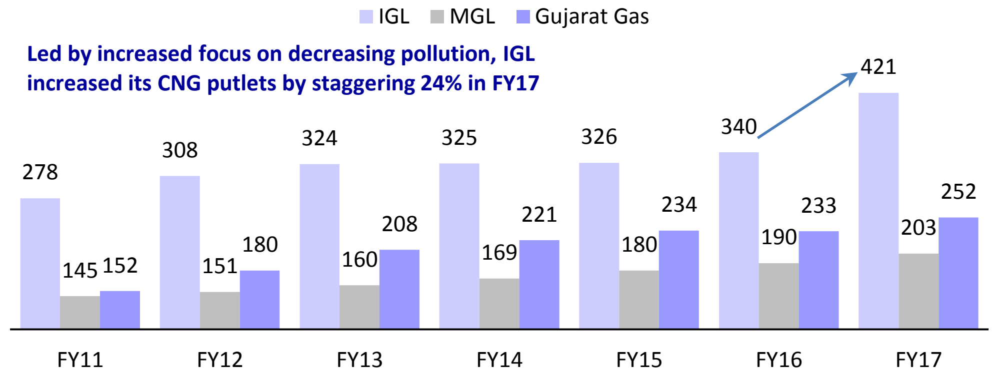
Source: IOCL, IGL, MOSL

Exhibit 12: Saving potential of CNG has been increasing



Source: IOC, IGL, MOSL

Exhibit 13: Increasing CNG outlets help increase access to gas



Source: Company, MOSL

BS-VI to propel next wave of growth for CGDs

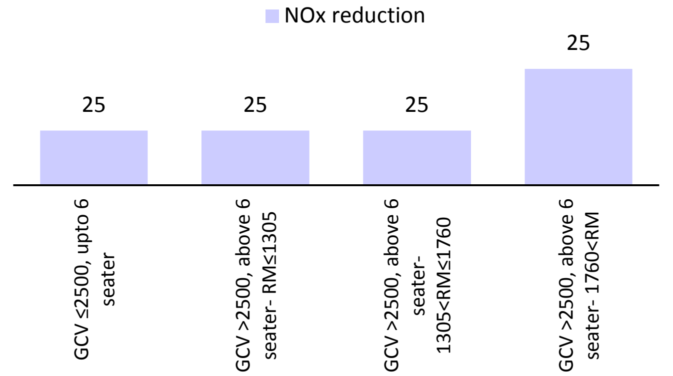
Disproportionate increase in cost of diesel vehicles = advantage CNG

- **BS-VI aims at cutting NOx emission by 25-70% over BS-IV. It also intends to cut THC+NOx emission by ~50%. Additionally, it also introduces stringent control on emission of PM, aiming to reduce it by ~90% over BS-IV.**
- **We estimate that cost of petrol/CNG vehicles would rise by INR20k-30k/vehicle while the cost of diesel vehicles would rise by INR75k-100k/vehicle due to usage of superior after-treatment packages.**
- **Increased cost differential of diesel v/s CNG would propel higher conversion of light commercial vehicles. We expect 12-13% volume CAGR for IGL and Gujarat Gas over FY17-22 and 7% for MAHGL**

BS-VI aims to curb NOx and PM emissions significantly

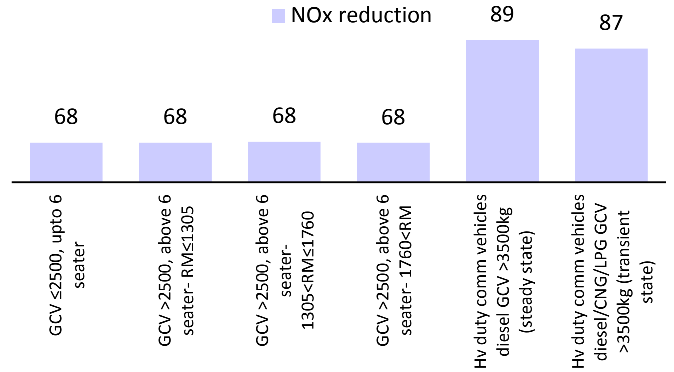
- BS-VI aims to cut NOx emissions by 25% over BS-IV for petrol vehicles, ~70% for diesel vehicles, and ~90% for heavy commercial vehicles.
- It also aims to cut THC+NOx emissions by 40-50% for diesel vehicles. PM is much more in focus, with reduction of 80-90% for diesel vehicles and 50-70% for heavy commercial vehicles.
- In BS-IV, there is no restriction on PM for petrol vehicles. This has been restricted to 4.5mg/km in BS-VI.

Exhibit 14: NOx reduction in petrol/CNG vehicles (%)



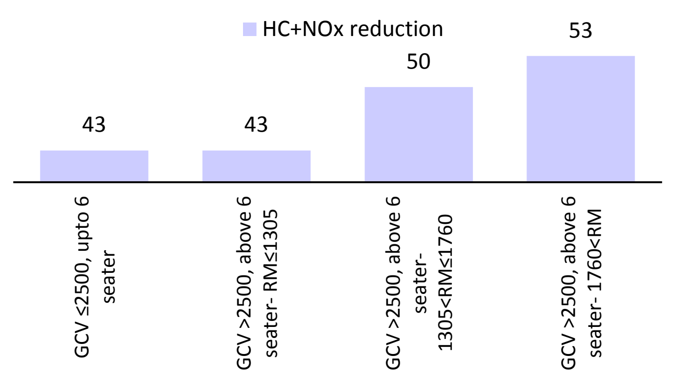
Source: ARAI, MOSL

Exhibit 15: NOx reduction in diesel vehicles (%)



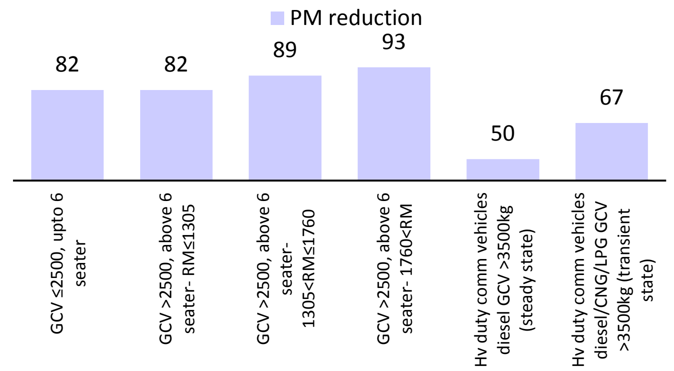
Source: ARAI, MOSL

Exhibit 16: THC+NOx reduction in diesel vehicles (%)



Source: ARAI, MOSL

Exhibit 17: PM reduction in diesel vehicles (%)



Source: ARAI, MOSL

Increased cost differential of diesel vehicles v/s petrol/CNG versions

- Petrol vehicles may require improved versions of multi-point fuel injection and three-way catalytic converter (TWC) or usage of gasoline direct injection (GDI) and gasoline particulate filter. While GDI may be much costlier, it is estimated that INR20k-30k incremental expenditure would be required for compliance with BS-VI norms for petrol/CNG vehicles.
- Diesel passenger vehicles would require changes in fuel injection system, lean NOX trap system and diesel particulate filter (DPF). This is expected to increase the cost of passenger vehicles by INR75k-100k per vehicle.
- Light and medium commercial vehicles currently use either diesel oxidation catalyst (DOC), exhaust gas recirculation (EGR) or selective catalytic reduction (SCR). Compliance with BS-VI would require better (and expensive) DOC, EGR and SCR packages and DPF. This may increase the cost of a vehicle by ~INR200k.
- Similarly, the cost of heavy commercial vehicles would increase by INR300k to comply with stringent BS-VI norms.

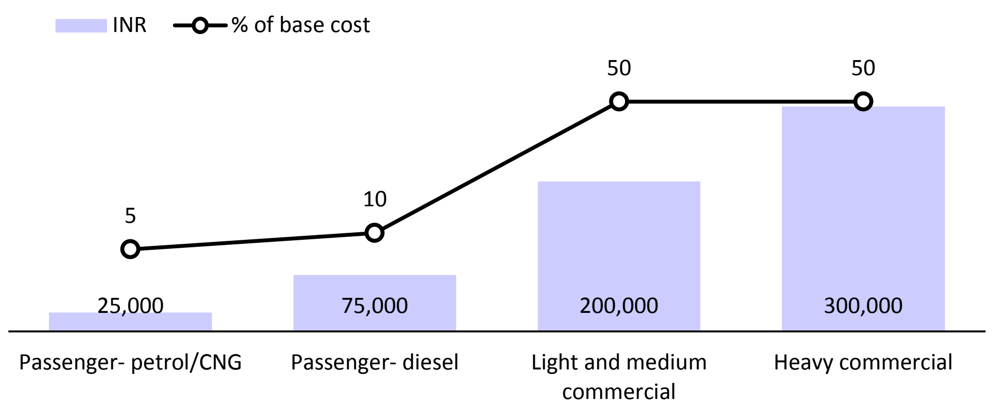
Exhibit 18: Various technologies for BS-VI compliance

	Reduction in emission (%)				Cost (USD)
	PM	NOx	HC	CO	
DOC	20-40		40-70	40-60	600-4,000
DPF	85-95		85-95	50-90	8,000-50,000
Partial DPF	≤60		40-75	10-60	4,000-6,000
SCR^		≤75			10,000-20,000
Closed crankcase ventilation^	varies		40-70		
EGR^		25-40	40-70		
Lean NO catalyst^		5-40	40-70		6,500-10,00

^Could be used with DOC or DPF to reduce PM, HC & CO

Source: ECMA, MOSL

Exhibit 19: Increase in cost of vehicles

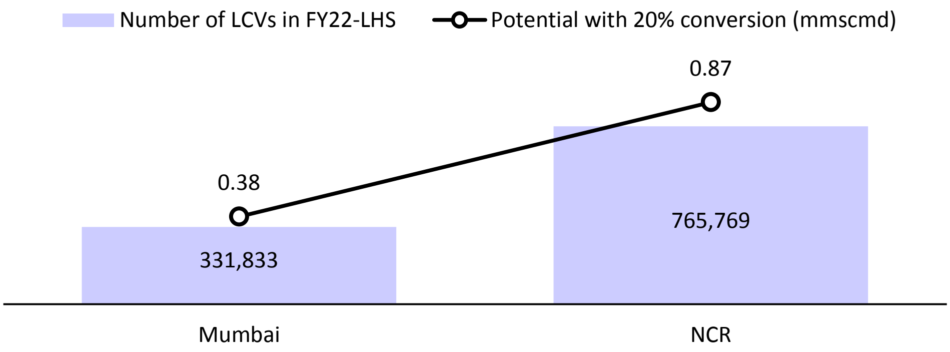


Source: Industry, MOSL

Commercial vehicles to drive next phase of growth for CGD companies

- We estimate that there are 0.3m LCVs in Mumbai and adjoining areas, of which only 3,800 are on CNG.
- Similarly, in Delhi alone, there are 0.3m light and medium commercial vehicles and offer good potential for CNG consumption growth.
- A 20% conversion would result in additional 5%/9% of CNG volume for IGL/MAHGL in FY22.

Exhibit 20: Potential of CNG consumption by LCVs



Source: Company, MOSL

PNG demand to grow at 11-13%

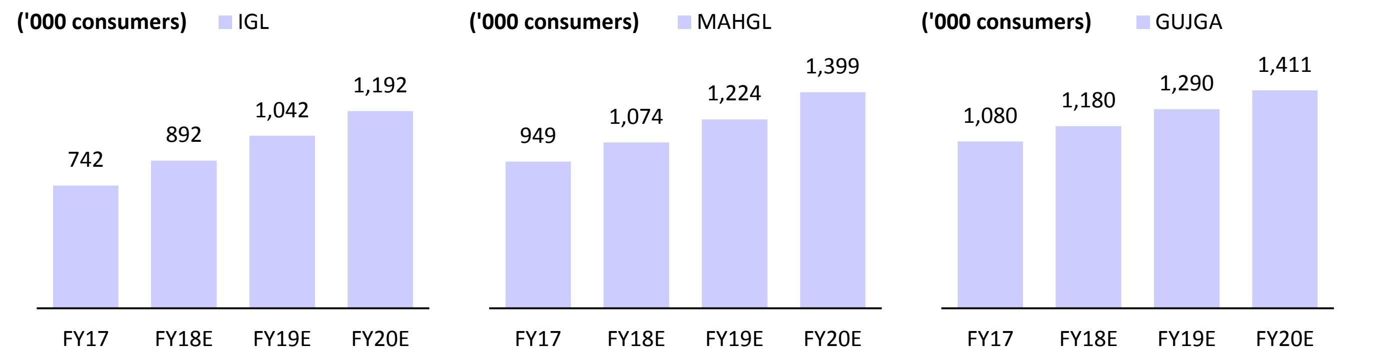
Emphasis on usage of greener fuels would drive adoption of gas

- **IGL, MAHGL and Gujarat Gas added 106k/106k/84k domestic consumers in FY17. We believe these can add 150k/125k/100k consumers in FY18.**
- **Due to increasing pollution, the judiciary has been trying to curb the usage of dirty fuels like fuel oil and petcoke by industries. This could further propel growth for CGDs.**
- **However, industrial consumption of gas would remain hostage to economics in relation to alternative fuels.**

PNG-domestic an excellent area of growth

- There has been increased emphasis by the government to increase penetration of PNG-domestic to curb access to subsidized LPG.
- IGL added 106,000 domestic consumers in FY17. Against that, we build in addition of 150,000 consumers in FY18/19/20.
- MAHGL added 106,000 domestic consumers in FY17. Against that, we build in addition of 125,000/150,000/175,000 consumers in FY18/19/20.
- Gujarat Gas added 84,000 domestic consumers in FY17. Against that, we build in addition of 100,000/110,000/121,000 consumers in FY18/19/20.

Exhibit 21: PNG-domestic addition for IGL, MAHGL & Gujarat Gas

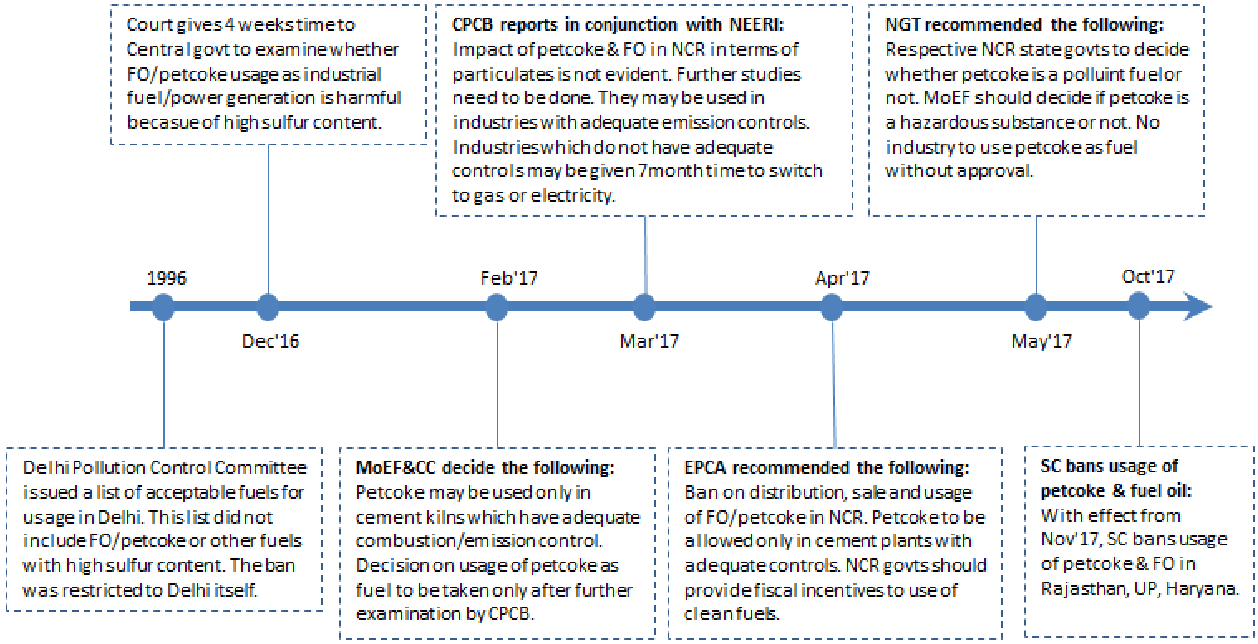


Source: Company, MOSL

Restrictions on usage of dirtier fuels could add to growth

- Petcoke and fuel oil (FO) usage in Delhi has been under ban since 1996. However, illegal usage is rampant. The judiciary recently banned usage of petcoke/FO in the states of Rajasthan, UP and Haryana.
- It is estimated that effective implementation could result in 0.3-0.5mmscmd of demand for IGL in the NCR.
- Gujarat also sees wide usage of coal gasifiers. While these are duly certified by pollution control boards, adherence to emission norms appears to be weak. As and when the compliance becomes stricter, it would aid gas consumption.

Exhibit 22: Recent timelines on restriction on usage of petcoke/FO in NCR



Source: Company, MOSL

Valuation and view

Multiple opportunities and demand potential command higher multiple

- **Global peers are trading at 17.3x FY19E EPS. In comparison, Indian CGDs are trading at 24.4x FY19E EPS. Global peers have RoE of 12.0% as compared with 23.0% for the Indian CGDs.**
- **Multiple growth opportunities in PNG and CNG combined with assured supply of domestic gas has put CGDs in a sweet spot. With pollution remaining a burning issue, regulatory push would keep coming in various forms. Indian companies offer the highest volume growth compared with peers in the US, China and Europe.**
- **Earlier, we valued IGL at 22x one year forward PE. However, given the sustainable newer growth opportunities, we believe they should command a higher multiple. We raise our target P/E multiple from 22x to 30x. We upgrade IGL to Buy, with a revised target price of INR404. We value MAHGL at at 22.5x (25% discount to IGL) INR1,219. We initiate coverage with a Neutral rating.**
- **Higher exposure to industrial segment and competition from cheap alternates results in high volatility in both volume and EBITDA/scm for Gujarat Gas. However, potential is high with Morbi alone throwing an opportunity of ~6mmscmd where the company sells ~2.7mmscmd. We raise our PE multiple from 15x to 27x, 10% discount to IGL and upgrade the stock to Buy from Sell with a target price of 1,011 (from INR721).**

Global valuations suggest deep value for Indian CGDs

- China aims to increase gas in its primary energy mix from 6% to 15% by 2020. There is a strong support from the government to eradicate pollution. Infrastructure is well developed and growing. However, the strong base means that volume growth would not be high. With expected consumption growth of 8% for next three years and RoEs of 17.2%, Chinese gas utility companies are trading at 15.6x FY19 EPS.
- The US offers a very open market with well-developed gas pipeline infrastructure and relatively cheaper gas. However, the market is mature and expected growth stands at 4%. With RoEs of 11.4%, they trade at 20.5x CY18 EPS.
- Japanese and South Korean companies with hardly any growth in gas consumption and RoEs of 5.5% command 15x FY19 PE.
- Europe with 1% growth expected in gas consumption and RoEs of 13.8%, commands 14.4x FY19/CY18 PE.
- India offers the fastest growth compared with the above. With increased focus on the environment, we see multiple growth opportunities for gas – both in industrial as well as in auto fuels.
- Expected restrictions on usage of FO/petcoke, restrictions on usage of diesel vehicles, increasing cost efficiency of CNG cars with respect to diesel post BS-VI implementation, organic growth in existing areas as well as inorganic growth through addition of new cities and inter-city travel open avenues of sustainable growth.
- Add to growth opportunities an assurance on supply of cheaper domestic gas, and it results in sustainable EBITDA/scm of INR6.0 for IGL and INR7.0-7.5 for MAHGL. Gujarat Gas has witnessed volatile EBITDA/scm of INR2.7-4.8 in the past two years. We assume EBITDA/scm of ~INR4.0-4.4 for Gujarat Gas.

- Considering the higher RoE, we value IGL at 30x average FY19-20 EPS and MAHGL at 22.5x (25% discount to IGL). We value Gujarat Gas at a discount of 10% to IGL at 27x. We initiate coverage on MAHGL with **Neutral** rating. We upgrade IGL to **Buy** from **Neutral** and Gujarat Gas to **Buy** from **Sell**.

Exhibit 23: Potential comparison of global peers

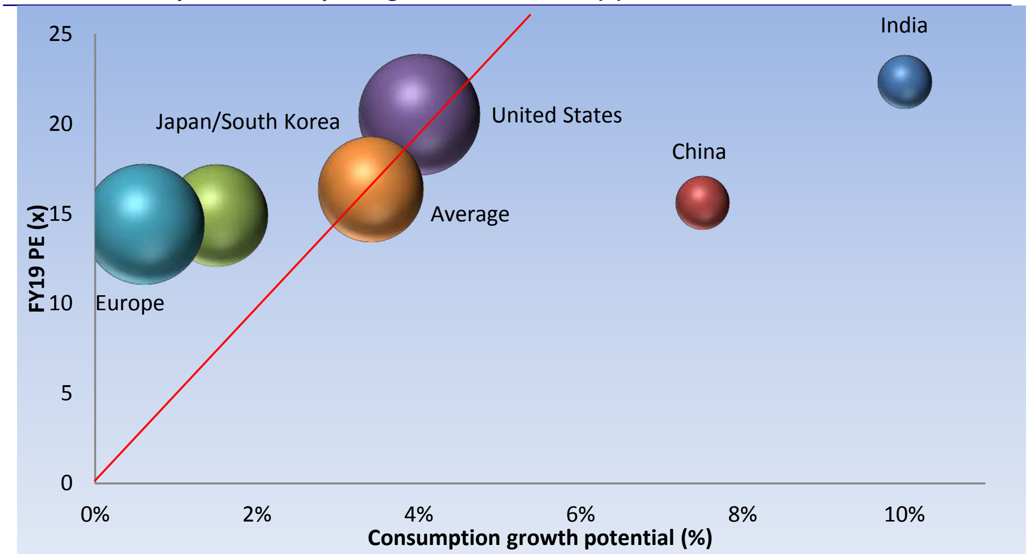
Gas Utilities	Country	GDP growth (last 5 years average)	Gas share in primary energy mix (2016)	Gas consumption CAGR (2011-16)	Gas consumption forecast
Gujarat Gas Ltd	India	6.9%	6.2%	-3.9%^	10.0%
Mahanagar Gas Ltd					
Indraprastha Gas Ltd					
China Gas Holdings Ltd	China	7.7%	6.2%	8.9%	7.5%
Hong Kong & China Gas Co Ltd					
Towngas China Co Ltd					
China Resources Gas Group Ltd					
ENN Energy Holdings Ltd					
Tokyo Gas Co Ltd	Japan	1.0%	22.5%	1.1%	1.5%
Osaka Gas Co Ltd					
Toho Gas Co Ltd					
Korea Gas Corp	South Korea	3.0%	14.3%	-0.4%	
Sempra Energy	United States	2.1%	31.5%	2.4%	4.0%
New Jersey Resources Corp					
Northwest Natural Gas Co					
Atmos Energy Corp					
South Jersey Industries Inc					
Duke Energy Corp					
CMS Energy Corp					
CenterPoint Energy Inc					
National Grid PLC	United Kingdom	2.0%	36.7%	-0.4%	0.6%
Enagas SA	Spain	0.4%	18.6%	-2.8%	0.6%
Snam SpA	Italy	-0.4%	38.4%	-1.9%	0.6%

^Consumption in India has fallen due to decline in domestic supply and constrained import infrastructure

Source: EIA, METI, BP, Bloomberg, MOSL

Given the high consumption growth potential, India deserves higher valuation multiple

Exhibit 24: Excepted consumption growth vs FY19 PE (x)



Note: Size of the bubble represents gas share in primary energy mix

Source: Bloomberg, MOSL

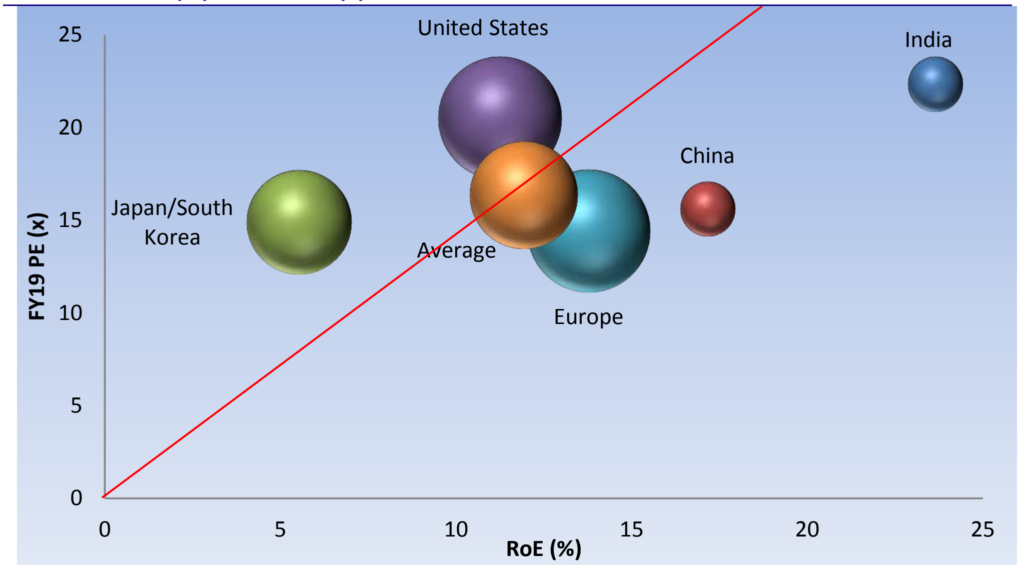
Exhibit 25: Valuation of global peers

Gas Utilities	Country	ROE (%)		EV/EBITDA		PBV (x)		PE (x)	
		FY18/ CY17	FY19/ CY18	FY18/ CY17	FY19/ CY18	FY18/ CY17	FY19/ CY18	FY18/ CY17	FY19/ CY18
Gujarat Gas Ltd	India	17.8	22.1	16.8	13.3	6.6	5.5	39.6	27.0
Mahanagar Gas Ltd		27.3	24.4	11.7	11.6	5.2	4.7	19.9	20.2
Indraprastha Gas Ltd		22.0	21.0	18.2	15.9	6.2	5.3	30.7	27.2
China Gas Holdings Ltd	China	24.2	24.2	16.0	13.6	4.7	3.9	20.3	17.2
Hong Kong & China Gas Co Ltd		13.5	13.7	22.4	21.0	3.3	3.2	25.3	24.3
Towngas China Co Ltd		8.6	8.9	12.4	11.0	1.2	1.1	13.9	12.3
China Resources Gas Group Ltd		19.4	19.2	8.6	7.8	2.7	2.3	14.2	12.6
ENN Energy Holdings Ltd		20.4	19.8	8.3	7.3	2.5	2.2	13.4	11.7
Tokyo Gas Co Ltd	Japan	6.0	6.5	7.4	6.9	1.1	1.1	18.5	17.2
Osaka Gas Co Ltd		5.0	5.1	7.8	7.6	0.9	0.9	18.5	17.4
Toho Gas Co Ltd		6.0	5.6	7.3	7.2	1.1	1.0	17.9	17.2
Korea Gas Corp	South Korea	4.4	4.9	9.7	9.4	0.4	0.4	8.8	7.9
Sempra Energy	United States	9.8	10.5	12.0	10.6	1.9	1.9	21.0	17.6
New Jersey Resources Corp		13.6	15.1	16.0	15.2	3.5	3.5	24.0	22.5
Northwest Natural Gas Co		6.8	8.6	10.8	10.0	1.9	1.8	28.8	26.3
Atmos Energy Corp		10.2	10.0	11.1	10.1	2.2	2.0	22.7	21.3
South Jersey Industries Inc		8.8	8.2	11.5	9.9	1.9	1.8	23.0	20.3
Duke Energy Corp		8.0	8.2	10.9	10.5	1.4	1.4	18.1	17.3
CMS Energy Corp		13.8	13.8	10.1	9.6	2.7	2.6	20.6	19.2
CenterPoint Energy Inc		15.4	15.5	8.9	8.7	3.4	3.3	20.9	19.7
National Grid PLC	United Kingdom	11.3	12.1	9.5	9.1	2.0	1.9	14.9	14.1
Enagas SA	Spain	15.6	15.3	11.0	11.1	2.1	2.1	13.6	13.6
Snam SpA	Italy	14.1	13.9	12.9	12.7	2.3	2.2	15.9	15.6
Average excluding Indian companies		**11.7**	**12.0**	**11.2**	**10.5**	**2.2**	**2.0**	**18.7**	**17.3**

Source: Bloomberg, MOSL

Superior RoEs for Indian companies warrants premium multiple v/s global peers

Exhibit 26: RoE (%) vs FY19 PE (x)



Note: Size of the bubble represents gas share in primary energy mix

Source: Bloomberg, MOSL

Risks to our call

Inability to pass on rise in input cost major risk

- **So far, CGDs have shown great discipline in passing on increase in input costs to consumers. However, any external interference that may force companies not to pass on the same could be detrimental.**
- **Competition is not a risk. However, if large consumers like state transport corporations decide to go for their own sourcing, it would result in volume loss.**
- **Regulatory concerns appear remote.**

Inability to pass on rise in input cost biggest risk

- Since the new pricing regime of domestic gas, October 2017 is the first time that domestic gas prices have been hiked. Though CGDs have broadly passed on this to end consumers, further/sharper increase in input price may inhibit ability to pass on to end consumers, thereby resulting in lower EBITDA/scm.
- So far, we have not seen any external interference in pricing of CNG, unlike the case in petrol and diesel.

Competition a remote risk

- Even after expiry of marketing exclusivity, we do not expect any competition, as any new entrant would not have any advantage over the incumbent in terms of cheaper sourcing of gas.
- The only risk is if state transport corporations decide to source their own gas. However, it is an entirely different business and they still have to grapple with managing their own issues of funding and infrastructure.
- Oil marketing companies (OMCs) have formed several CGD JVs. A substantial number of CNG retail outlets are in the premises of the OMCs, which appear to be content with rentals.

Regulatory risk appears remote

- After Supreme Court ruling in favor of IGL in 2014, it appears remote that there would be a fresh move to regulate the business of the CGDs.
- Additionally, the CGDs need funds to expand their presence in newer geographies. Capping their margins would go against the policy of increasing penetration of gas in the country.

Companies

BSE Sensex: 33,679 **S&P CNX: 10,390** **November 2017**

27 November 2017

Update | Sector: Oil & Gas

Indraprastha Gas

BSE SENSEX	S&P CNX
33,679	10,390

INDRAPRASTHA GAS LIMITED

Stock Info

Bloomberg	IGL IN
Equity Shares (m)	700.0
52-Week Range (INR)	326/162
1, 6, 12 Rel. Per (%)	-5/44/59
M.Cap. (INR b)	210.0
M.Cap. (USD b)	3.3
Avg Val, INRm	594.0
Free float (%)	55.0

Financials Snapshot (INR b)

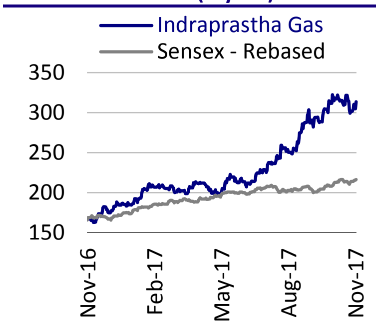
Y/E March	2018E	2019E	2020E
Sales	45.5	51.1	57.0
EBITDA	11.4	12.6	14.0
Adj. PAT	7.0	7.9	8.9
Adj. EPS (INR)	10.0	11.2	12.7
EPS Gr. (%)	13.7	12.3	13.2
BV/Sh.(INR)	49.5	58.4	67.6
RoE (%)	21.9	20.8	20.2
RoCE (%)	20.7	19.9	19.4
P/E (x)	30.0	26.7	23.6
P/BV (x)	6.1	5.1	4.4
EV/EBITDA. x	3.0	2.3	1.7
Div. Yield (%)	0.7	0.7	1.0

Shareholding pattern (%)

As On	Sep-17	Jun-17	Sep-16
Promoter	45.0	45.0	45.0
DII	18.5	19.3	19.5
FII	25.3	24.1	21.5
Others	11.3	11.6	14.1

FII Includes depository receipts

Stock Performance (1-year)



CMP: INR313 TP: INR404 (+29%) Upgrade to Buy

Multiple opportunities for growth

All segments have great potential

- **We expect 13/10/10% growth in CNG in FY18/19/20, led by conversions in existing areas – Rewari and Gurugram, and inter-city travel. Implementation of BS-VI would further add to growth beyond FY20.**
- **Award of further areas in Gurugram, restrictions on usage of FO/petcoke could propel PNG growth to 16/16/15% in FY18/19/20.**
- **We value IGL at 30x average FY19-20E standalone EPS of INR10.7 and add INR40 for its stake in CUGL & MNGL to arrive at Sep-18 TP of INR404, implying an upside of +31%. Thus we upgrade the stock from Neutral to Buy.**

CNG growth at 13/10/10% in FY18/19/20

- After four years of average 5% growth, CNG segment grew 13% in FY17, led by restrictions on diesel vehicles, higher conversion of private cars, and conversion of aggregators.
- We expect volume growth to remain at 11.6% on an average in FY18-22, led by conversions in existing areas and higher penetration in Rewari and Gurugram.
- We expect LCVs and inter-city travel to account for 6% of total CNG sales by FY22.

Restriction on usage of FO/petcoke could add 0.1-0.2mmscmd

- Supreme Court has banned usage of petcoke/fuel oil in Rajasthan, UP and Haryana, in addition to the existing ban in Delhi. This may result in 0.1-0.2mmscmd of additional demand.
- Rewari, Karnal and the currently awarded area of Gurugram could easily add 1-1.5mmscmd in the next five years.
- If all areas currently uncovered in Gurugram are awarded to IGL, then the peak potential from Gurugram could be 1.25mmscmd.

EBITDA/scm to remain strong

- CNG accounted for ~75% of the total volume sold in FY17. Higher exposure to CNG also gives IGL the ability to effectively pass on changes in input prices to consumers. EBITDA/scm stood at an average of INR5.6 during FY13-17.
- We assume EBITDA/scm of INR6, the same as that in 1HFY18. An INR0.5 change in EBITDA/scm results in 9% change in FY19E EBITDA and EPS.

Valuation and view

- IGL had received permission from the Haryana government to lay a city gas distribution network in a part of Gurugram district. We believe more such permissions in other areas of Gurugram can boost the company's prospects.
- Led by strong focus on curbing pollution in the National Capital Region (NCR), CNG sales volume is likely to grow strongly. Expected restriction on the usage of dirty fuels would propel volumes further. We model FY18/19/20 volume growth at 13%/11/11% and EBITDA/scm at INR6/scm.
- Global peers are trading at 17.3x FY19E EPS. In comparison, Indian CGDs are trading at 24.4x FY19E EPS. Global peers have RoE of 12.0% as compared with 23.0% for the Indian CGDs.
- We used to value IGL at 22x one year forward EPS. However, given the sustainable newer growth opportunities compared with global peers and much better return ratios, we believe they should command a premium. We raise our target P/E multiple from 22x to 30x FY19-20E EPS. We upgrade IGL to **Buy**, with a revised target price of INR404.

Exhibit 27: IGL - Key assumptions

Y-End: March (INR m)	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Exchange Rate (INR/USD)	45.3	47.9	54.5	60.6	60.0	65.4	67.0	64.6	66.1	67.0
Gas sales										
CNG realization (INR/kg)	26.5	31.1	37.6	42.0	37.3	36.9	35.4	37.2	37.8	38.0
PNG realization (INR/scm)	18.6	21.8	26.5	30.1	31.7	28.5	22.2	22.2	22.4	22.7
Gas volumes										
CNG volumes (mmscm)	818	938	1,005	1,028	1,072	1,125	1,269	1,435	1,574	1,734
PNG volumes (mmscm)	180	282	333	356	330	342	406	469	543	627
Total sales volume (mmscm)	998	1,220	1,338	1,384	1,402	1,466	1,675	1,905	2,118	2,362
Gas purchase volumes (mmscmd)										
APM	2.20	2.20	2.70	2.87	3.24	3.38	3.94	4.59	5.12	5.84
LNG	0.67	1.28	1.11	1.05	0.73	0.77	0.80	0.80	0.88	0.85
Total	**2.87**	**3.48**	**3.81**	**3.92**	**3.97**	**4.15**	**4.74**	**5.39**	**6.00**	**6.69**
EPS	**3.7**	**4.4**	**5.1**	**5.1**	**6.3**	**6.0**	**8.8**	**10.0**	**11.3**	**12.9**

Source: Company, MOSL

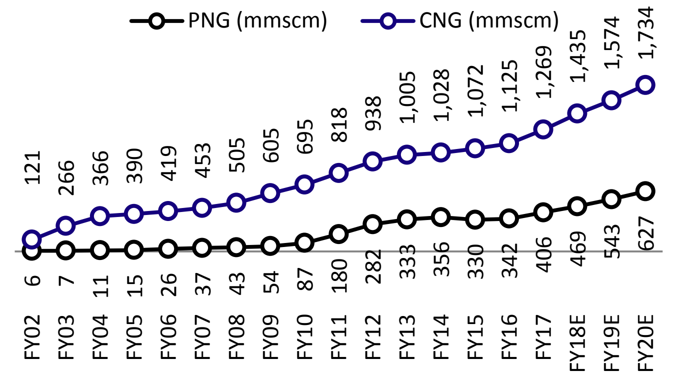
Exhibit 28: IGL – SOTP valuation

SOTP Valuation			Base		
SA FY19-20 EPS	12.1	12.1	12.1	12.1	12.1
Target P/E (x)	26.0	28.0	30.0	32.0	34.0
Standalone value	**315**	**340**	**364**	**388**	**412**
JV value (post 20% discount)	40	40	40	40	40
Fair value	**356**	**380**	**404**	**428**	**453**
CMP	313	313	313	313	313
Upside/Downside	14%	21%	29%	37%	45%

Source: Company, MOSL

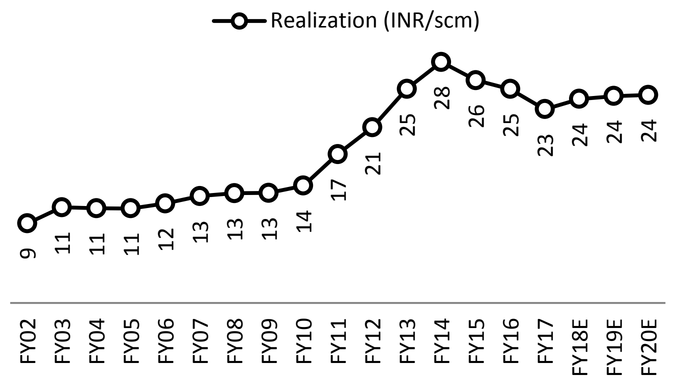
Story in charts

Exhibit 29: CNG sales growth had stagnated in recent years; expect growth to gain momentum



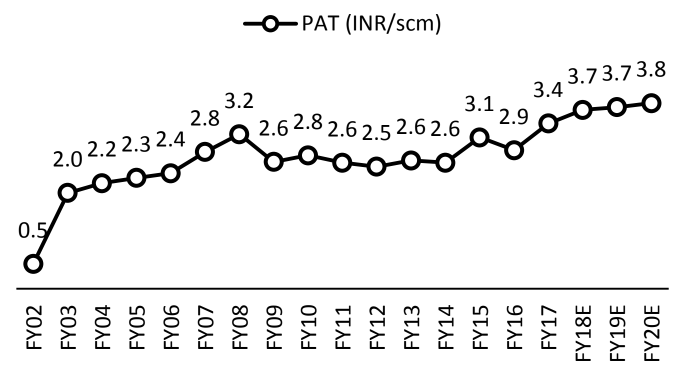
Source: Company, MOSL

Exhibit 30: IGL passes any cost increase to maintain its margins through its CNG and PNG consumer prices



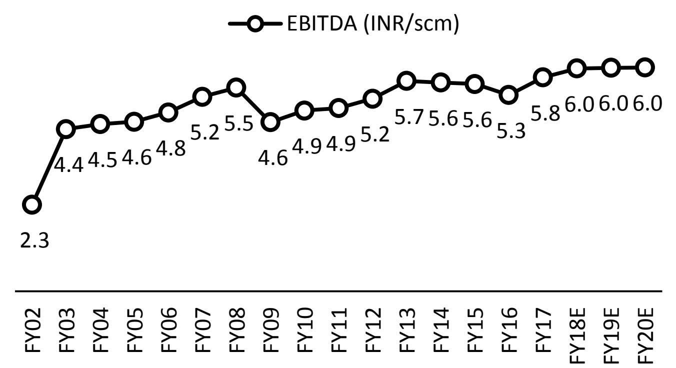
Source: Company, MOSL

Exhibit 31: IGL has been able to maintain its profitability (PAT in INR/scm)



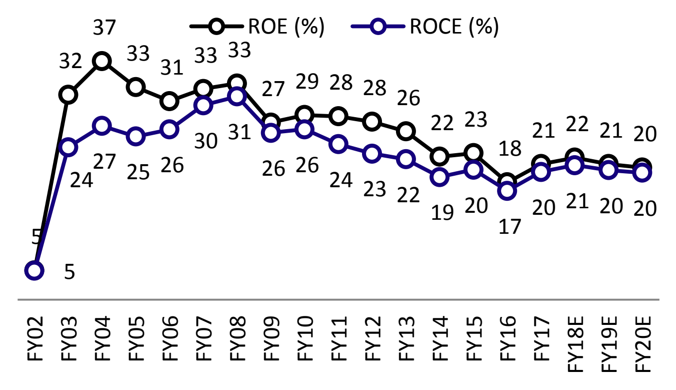
Source: Company, MOSL

Exhibit 32: Price pass-through ensures stable EBITDA/scm for IGL



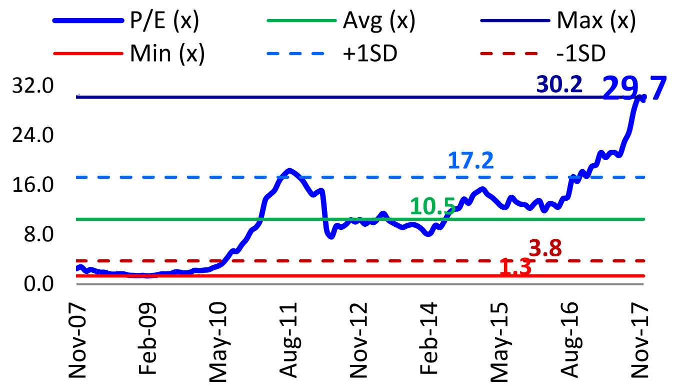
Source: Company, MOSL

Exhibit 33: Stable return ratios (%)



Source: Company, MOSL

Exhibit 34: IGL – one-year forward P/E



Source: Company, MOSL

Financials and Valuations

Income Statement (INR m)

Y/E March	2013	2014	2015	2016	2017	2018E	2019E	2020E
Net Sales	**33,661**	**39,174**	**36,699**	**36,858**	**38,148**	**45,638**	**51,490**	**57,727**
Change (%)	33.8	16.4	-6.3	0.4	3.5	19.6	12.8	12.1
Raw Materials Cons	21,970	26,815	23,816	22,761	20,837	24,126	27,506	30,915
Employee Costs	567	596	660	784	917	1,055	1,213	1,395
Other Exp (incl Stock Adj)	3,551	3,990	4,404	5,566	6,756	9,036	10,040	11,199
EBITDA	**7,572**	**7,773**	**7,820**	**7,747**	**9,638**	**11,422**	**12,730**	**14,217**
% of Net Sales	22.5	19.8	21.3	21.0	25.3	25.0	24.7	24.6
Depreciation	1,867	2,195	1,487	1,563	1,671	1,886	2,073	2,259
Interest	562	441	298	99	12	0	0	0
Other Income	138	259	456	299	652	1,107	1,362	1,744
Prior Period Inc./(Exp.)	0	0	0	0	0	0	0	0
PBT	**5,282**	**5,395**	**6,490**	**6,385**	**8,607**	**10,643**	**12,019**	**13,702**
Tax	1,741	1,795	2,113	2,194	2,896	3,619	4,087	4,659
Rate (%)	33.0	33.3	32.6	34.4	33.6	34.0	34.0	34.0
PAT	3,541	3,600	4,377	4,191	5,711	7,024	7,933	9,043
Adj. PAT	**3,541**	**3,600**	**4,377**	**4,191**	**6,156**	**7,024**	**7,933**	**9,043**
Change (%)	15.3	1.7	21.6	-4.3	46.9	14.1	12.9	14.0

Balance Sheet (INR m)

Y/E March	2013	2014	2015	2016	2017	2018E	2019E	2020E
Share Capital	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400
Reserves	13,530	16,232	19,581	23,764	27,866	33,252	39,547	46,133
Net Worth	**14,930**	**17,632**	**20,981**	**25,164**	**29,266**	**34,652**	**40,947**	**47,533**
Loans	3,491	3,212	1,453	0	0	0	0	0
Deferred Tax	843	963	1,272	1,650	1,806	1,806	1,806	1,806
Capital Employed	**19,264**	**21,807**	**23,706**	**26,815**	**31,072**	**36,458**	**42,753**	**49,340**
Gross Fixed Assets	27,186	29,733	31,761	33,752	36,402	40,402	44,402	48,402
Less: Depreciation	8,713	10,780	12,203	13,560	15,231	17,117	19,189	21,448
Net Fixed Assets	**18,473**	**18,953**	**19,558**	**20,192**	**21,172**	**23,286**	**25,213**	**26,954**
Capital WIP	2,913	2,624	2,541	2,669	3,518	3,518	3,518	3,518
Investments	1,426	1,173	2,909	2,592	6,770	6,770	6,770	6,770
Curr. Assets, L & Adv.								
Inventory	397	371	409	576	517	724	816	914
Debtors	1,789	2,196	2,352	2,511	2,014	2,997	3,378	3,782
Cash & Bank Balance	510	2,514	2,315	4,538	6,086	8,145	13,362	19,051
Loans & Advances	654	493	489	80	103	103	103	103
Other Current Assets	119	197	163	655	682	682	682	682
Current Liab. & Prov.								
Liabilities	6,032	5,712	5,866	6,847	9,580	9,556	10,878	12,224
Provisions	984	1,001	1,163	151	210	210	210	210
Net Current Assets	**-3,548**	**-943**	**-1,302**	**1,362**	**-388**	**2,884**	**7,252**	**12,097**
Application of Funds	**19,264**	**21,808**	**23,706**	**26,815**	**31,072**	**36,458**	**42,753**	**49,340**

E: MOSL Estimates

Financials and Valuations

Ratios								
Y/E March	**2013**	**2014**	**2015**	**2016**	**2017**	**2018E**	**2019E**	**2020E**
Basic (INR)								
EPS	**5.1**	**5.1**	**6.3**	**6.0**	**8.8**	**10.0**	**11.3**	**12.9**
Cash EPS	7.7	8.3	8.4	8.2	11.2	12.7	14.3	16.1
Book Value	21.3	25.2	30.0	35.9	41.8	49.5	58.5	67.9
DPS	5.5	5.5	6.0	6.0	2.0	2.0	2.0	3.0
Payout	108.7	106.9	96.0	100.2	22.7	19.9	17.6	23.2
Valuation (x)								
P/E	61.9	60.9	50.1	52.3	35.6	31.2	27.6	24.2
Cash P/E	40.5	37.8	37.4	38.1	28.0	24.6	21.9	19.4
EV / EBITDA	29.3	28.3	27.9	27.7	22.1	18.5	16.2	14.1
EV / Sales	6.6	5.6	5.9	5.8	5.6	4.6	4.0	3.5
Price / Book Value	14.7	12.4	10.4	8.7	7.5	6.3	5.4	4.6
Dividend Yield (%)	1.8	1.8	1.9	1.9	0.6	0.6	0.6	1.0
Profitability Ratios (%)								
RoE	26.0	22.1	22.7	18.2	21.0	22.0	21.0	20.4
RoCE	21.7	19.0	20.1	16.8	19.8	20.8	20.0	19.6
RoIC	29.9	26.0	29.1	25.8	36.1	42.9	42.7	46.3
Turnover Ratios								
Debtors (No. of Days)	22	20	16	15	17	18	16	16
Asset Turnover (x)	1.9	1.9	1.6	1.5	1.3	1.4	1.3	1.3
Leverage Ratio								
Net Debt / Equity (x)	0.2	0.0	0.0	-0.2	-0.2	-0.2	-0.3	-0.4

Cash Flow Statement								(INR m)
Y/E March	**2013**	**2014**	**2015**	**2016**	**2017**	**2018E**	**2019E**	**2020E**
OP/(Loss) before Tax	5,282	5,398	6,490	6,385	8,607	10,643	12,019	13,702
Depreciation	1,867	2,195	1,487	1,563	1,671	1,886	2,073	2,259
Others	506	283	19	99	12	0	0	0
Direct Taxes Paid	-1,530	-1,698	-1,770	-1,812	-2,735	-3,619	-4,087	-4,659
(Inc)/Dec in Wkg. Capital	309	297	411	-440	3,298	-1,213	849	844
CF from Op. Activity	**6,433**	**6,476**	**6,638**	**5,795**	**10,852**	**7,697**	**10,855**	**12,146**
(Inc)/Dec in FA & CWIP	-3,716	-2,493	-2,148	-2,119	-3,499	-4,000	-4,000	-4,000
Free Cash Flow	**2,716**	**3,982**	**4,490**	**3,676**	**7,353**	**3,697**	**6,855**	**8,146**
(Pur)/Sale of Investments	0	-692	-1,805	317	-4,179	0	0	0
Others	-347	180	316	766	-304	0	0	0
CF from Inv. Activity	**-4,063**	**-3,005**	**-3,637**	**-1,036**	**-7,982**	**-4,000**	**-4,000**	**-4,000**
Issue of Shares	0	0	0	0	0	0	0	0
Inc / (Dec) in Debt	-806	-1,060	-2,072	-1,453	0	0	0	0
Dividends Paid (incl.tax)	-814	-901	-901	-983	-1,310	-1,638	-1,638	-2,457
Interest paid	-561	-451	-299	-99	-12	0	0	0
Others	0	0	0	0	0	0	0	0
CF from Fin. Activity	**-2,180**	**-2,411**	**-3,272**	**-2,535**	**-1,322**	**-1,638**	**-1,638**	**-2,457**
Inc / (Dec) in Cash	**190**	**1,060**	**-271**	**2,223**	**1,548**	**2,059**	**5,217**	**5,689**
Add: Opening Balance	320	510	2,514	2,315	4,538	6,086	8,145	13,362
Closing Balance	**510**	**1,569**	**2,242**	**4,538**	**6,086**	**8,145**	**13,362**	**19,051**

E: MOSL Estimates

27 November 2017

Initiating Coverage | Sector: Oil & Gas

Mahanagar Gas

BSE SENSEX	S&P CNX
33,679	10,390

MAHANAGAR GAS

Stock Info

Bloomberg	MAHGL IN
Equity Shares (m)	89.3
52-Week Range (INR)	1345/725
1, 6, 12 Rel. Per (%)	-12/5/20
M.Cap. (INR b)	96.9
M.Cap. (USD b)	1.5
Avg Val, INRm	-
Free float (%)	-

Financials Snapshot (INR b)

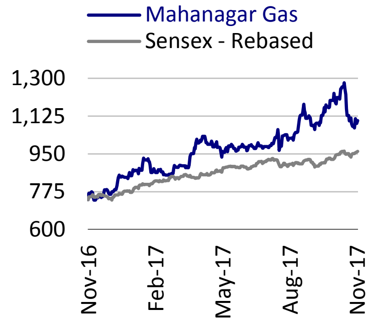
Y/E March	2018E	2019E	2020E
Sales	22.9	24.5	27.1
EBITDA	7.9	7.8	7.9
Adj. PAT	4.9	4.8	4.9
Adj. EPS (INR)	54.4	53.8	54.5
EPS Gr. (%)	23.6	-1.1	1.2
BV/Sh.(INR)	209.9	231.2	252.7
RoE (%)	27.3	24.4	22.5
RoCE (%)	27.2	24.3	22.4
P/E (x)	20.2	20.5	20.2
P/BV (x)	5.3	4.8	4.4
EV/EBITDA (x)	11.9	11.8	11.3
Div. Yield (%)	2.5	2.5	2.5

Shareholding pattern (%)

As On	Dec-16	Sep-16	Jun-16
Promoter	45.0	45.0	45.0
DII	19.1	19.5	21.7
FII	22.6	21.5	20.5
Others	13.3	14.1	12.9

FII Includes depository receipts

Stock Performance (1-year)



CMP: INR1,102 TP: INR1,219 (+11%) Neutral

Muted growth; initiate with Neutral

Regulatory push could pose upside risk

- Mahanagar Gas (MAHGL) is a Mumbai-based city gas distribution (CGD) company, established in 1995 by GAIL India and British Gas. It supplies compressed natural gas (CNG) and piped natural gas (PNG) in and around Mumbai and the Raigad district. In FY17, it supplied 2.57mmscmd of gas, of which 74% was CNG and 26% was PNG.
- We expect ~7% CAGR in MAHGL's CNG volumes over FY17-22, led by conversions and expansion in Thane and Raigad. Delhi-like restrictions could further boost consumption of CNG.
- Industrial demand in Mumbai remains low. However, Raigad could offer a good growth area, with peak potential of 0.6mmscmd.
- Due to lower growth potential than IGL, we value the company at 25% discount to IGL, at 22.5x average FY19-20E EPS of INR54.2. We initiate coverage, with a target price of INR1,219 and a Neutral recommendation.

CNG growth of 4%/4%/7% in FY18/19/20

- With 4,838km of pipeline infrastructure and 203 CNG stations, MAHGL supplies gas to 0.54m vehicles.
- Except in FY16, it witnessed 7.8% growth in CNG volumes over FY12-17. We estimate 7% CAGR over FY17-22, led by higher conversions and expansions in new areas.
- We also estimate that from nil in FY17, intercity travel and LCVs could easily account for 11% of CNG sales in FY22.

GA-2 and GA-3 to drive growth

- MAHGL faces constraints in opening more CNG stations in GA-1. However, it expects to open more retail outlets in Thane-urban and adjoining areas, which would drive growth, going forward.
- Raigad is expected to witness exponential growth, led by upcoming international airport and Trans-Harbor link. The company has identified six clusters for quick monetization of the potential. Gas supply has commenced in June 2017.

Newer areas to aid Industrial segment growth

- The commercial segment has seen good demand growth, with the addition of 352 new consumers in FY17. We expect continued growth from the commercial segment, which has ~30% penetration.
- The industrial segment remains a laggard due to availability of cheaper but dirty alternatives like fuel oil and high price of real estate, forcing industries to move away from Mumbai. We expect ~2% average annual growth in PNG-Industrial from existing areas. However, due to contribution from Raigad, we expect CAGR of 10.5% in PNG-industrial/commercial.

Valuation and view

- Only ~2,700 BEST buses run on CNG, as there is no mandatory requirement of running public transport on CNG as in Delhi. With rising concerns on pollution, similar mandate may come in Mumbai, boosting CNG sales for MAHGL.
- Unlike IGL, MAHGL does not enjoy the regulatory push with respect to commercial vehicles. Geographical location also would result in lesser intercity travel than for IGL.
- Global peers are trading at 17.3x FY19E EPS. In comparison, Indian CGDs are trading at 24.4x FY19E EPS. Global peers have RoE of 12% as compared with 23% for the Indian CGDs.
- We expect 5%/6%/8% volume growth for MAHGL in FY18/19/20. We expect EBITDA CAGR of 7% and EPS CAGR of 7% over FY17-20. Valuing the company at 22.5x (25% discount to IGL) average FY19-20E EPS, we arrive at a September 2018E target price of INR1,219, implying an upside of 11%. We initiate coverage with a **Neutral** recommendation.

Risks to our call

- MAHGL has been reporting highest EBITDA/scm in past few quarters. We have assumed EBITDA/scm to soften from INR8.0 in 1HFY18 to INR7.0 gradually in FY20 as we expect the company to use more of the premises of the OMCs which would increase their opex. A higher EBITDA/scm could pose upside risk to our call.
- The operating areas for MAHGL do not have a regulatory mandate for public transport to be run on CNG. Mumbai also faces high pollution, although lesser than Delhi. Any regulatory ruling which could push sales volume higher could pose an upside risk for the stock.

CNG growth of 4%/4%/7% in FY18/19/20

- **With 4,838km of pipeline infrastructure and 203 CNG stations, MAHGL supplies gas to 0.54m vehicles.**
- **Except FY16, it witnessed a growth of 7.8% in CNG during FY12-17. We estimate a annual average growth of 7% during FY17-22, led by higher conversions, expansion to newer areas, inter-city travel as well as contribution from LCVs.**
- **We also estimate that from nil in FY17, inter-city travel and LCVs could easily account for 11% of CNG sales in FY22.**

Monopoly CNG supplier in high potential markets

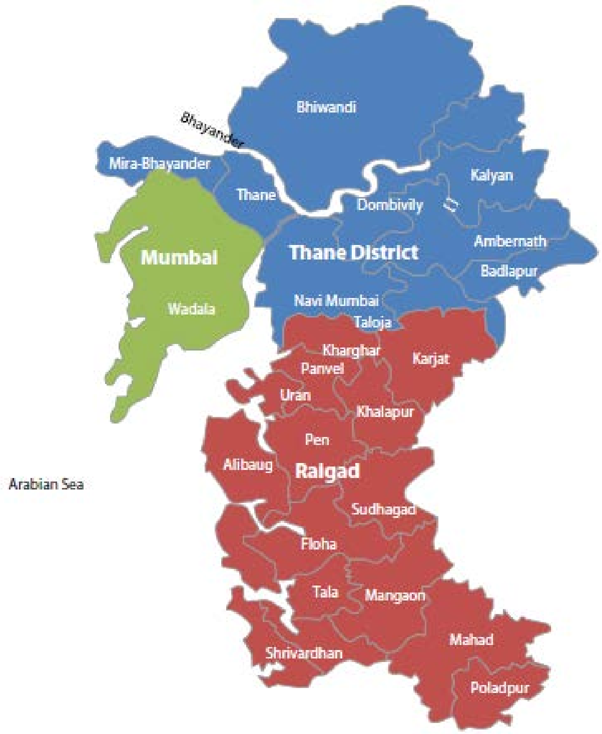
- MAHGL is well entrenched in Mumbai and adjoining areas, with a network of 203 CNG filling stations across GA-1 and GA-2. It has a total pipeline network of 4,838km, which is adequate to cover the entire Mumbai Metropolitan Region (total area of ~4,355km^2) once, and enough to cover Mumbai more than seven times (area of ~603km^2). MAHGL has network exclusivity in Mumbai till FY20, in adjoining areas till FY30, and in Raigad till FY40.

Exhibit 35: Snapshot of MAHGL's markets

Area	Territories included	End of Infra exclusivity	End of Mktg. Exclusivity
GA-1	Mumbai & Greater Mumbai; Charge Area (CA): 23 administrative wards of BMC	2020	2012
GA-2	Thane City & adjoining contiguous areas including Mira Bhayender, Navi Mumbai, Thane City, Ambernath, Bhiwandi, Kalyan, Dombivali, Badalapur, Ulhasnagar, Panvel, Kharghar & Taloja	2030	2014
GA-3	Raigarh district excluding areas already authorized	2040	

Source: Company, MOSL

Exhibit 36: MAHGL's current distribution network in Mumbai, Thane and Raigad

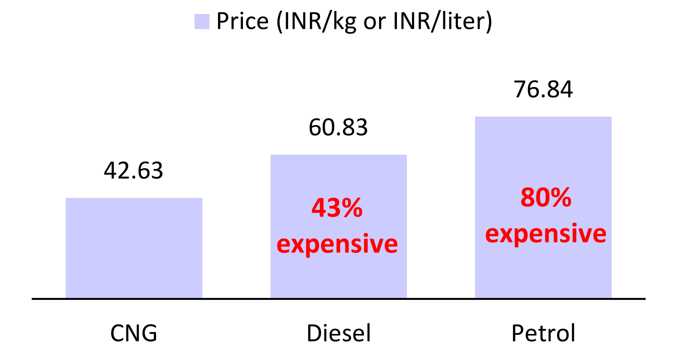


Source: Company, MOSL

CNG volumes to grow at 5% CAGR over FY17-20

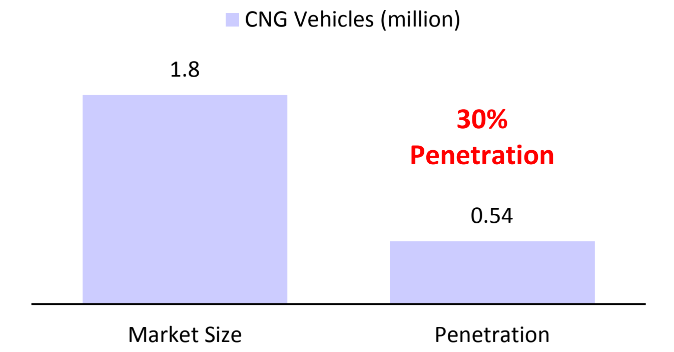
- MAHGL's current network spans over 203 CNG stations. It has a CNG customer base of 0.54m and it supplies PNG to ~0.95m households and ~3,280 non-domestic consumers. Being a single operator in its geographical area ensures a captive consumer base and this has helped MAHGL to record a volume CAGR of 7% during FY11-17.
- CNG leads the volume contribution for MAHGL, followed by PNG. In FY17, it supplied 2.57mmscmd of gas, of which 74% was CNG and 26% was PNG.
- We expect MAHGL's CNG volumes to grow at 5% CAGR over FY17-20, led by (a) attractive fuel economics of CNG in comparison to alternative fuels, (b) low penetration in areas of operation, and (c) favorable regulatory environment.

Exhibit 37: CNG offers better fuel economics



Source: Company, MOSL

Exhibit 38: Low penetration in areas of operation



Source: Company, MOSL

Exhibit 39: Attractive fuel economics

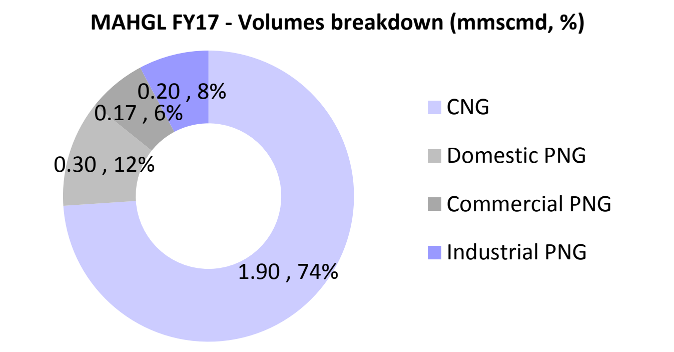
Price Advantage: Natural gas provides economic benefits over most alternative liquid fuels

Fuel Efficiency: CNG vehicles typically enjoy higher fuel efficiency

Payback Period: Lower running costs result in lower payback period and savings

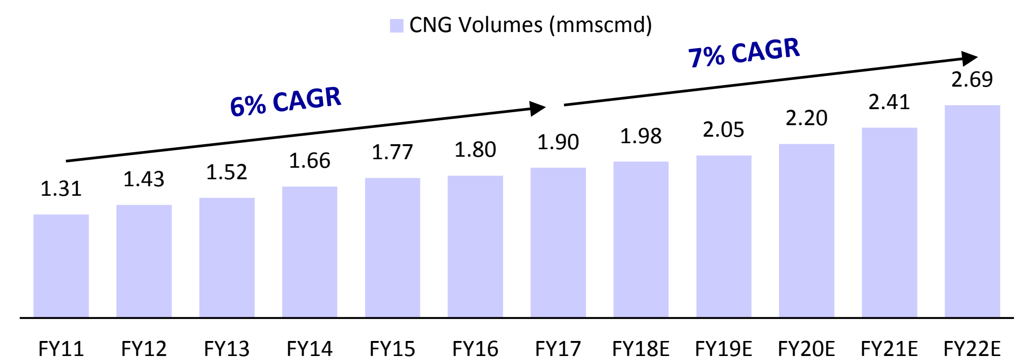
Source: Company, MOSL

Exhibit 40: CNG contributed ~74% of MAHGL's FY17 volumes



Source: Company, MOSL

Exhibit 41: CNG volumes expected to grow at 7% CAGR over FY17-22



Source: Company, MOSL

GA-2 and GA-3 to drive growth

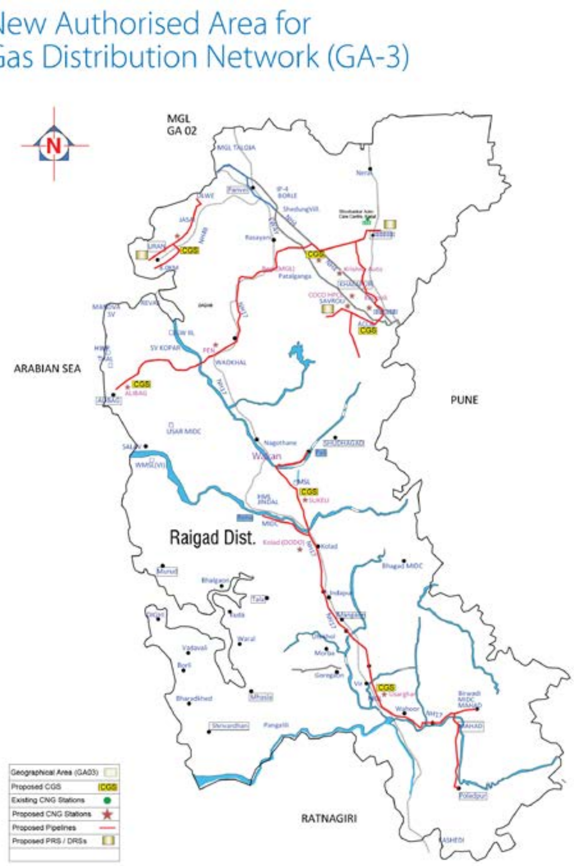
- **MAHGL faces constraints in opening of more CNG stations in GA-1. However, it expects to open more retail outlets in Thane-Urban and adjoining areas, which would drive growth, going forward.**
- **Raigad is expected to witness exponential growth, led by upcoming international airport and Trans-Harbor link. The company has identified six clusters for quick monetization of the potential. Gas supply has commenced in June 2017.**

New areas to drive growth

- MAHGL continue to increase its presence in Mumbai area, though opening new outlets in in South Mumbai is a tough task due to space constraints and delay in construction clearance. However, it expects to open more retail outlets in Thane-Urban and adjoining areas, which would drive growth, going forward.
- MAHGL had been awarded the rights to develop NG infrastructure in Raigad district in 2015 in the 4th round of CGD bidding. Raigad market has untapped potential and MAHGL plans to drive long-term volume growth by developing a customer base in this GA.
- MAHGL has started project activities in the Raigad district to lay, build and develop CGD infrastructure. During the year, a CNG station has also been set up in Raigad at Karjat, and gas sales have been stabilized. Going forward, MAHGL intends to open a couple of more CNG stations in the region.

In the Raigad district, MAHGL has laid and gasified pipelines in Uran to supply gas

Exhibit 42: Raigad (GA-3) has significant longer-term potential



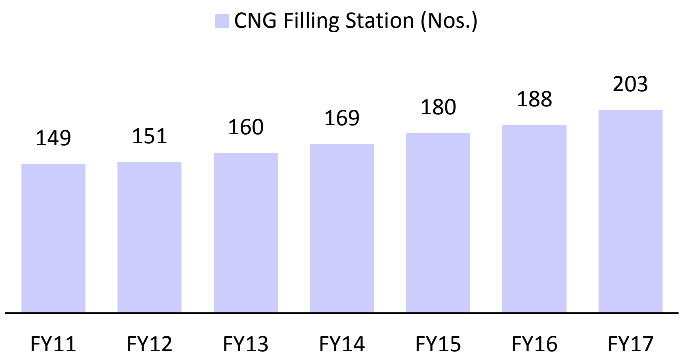
Source: Company, MOSL

- Raigad has significant longer-term potential from the smart city policy, planned townships, international airport, and the Trans-Harbor Link. For the near term, MAHGL has identified six industrial clusters accessible to the gas grid that can be catered to through a concentrated network.

Improving infrastructure to strengthen network

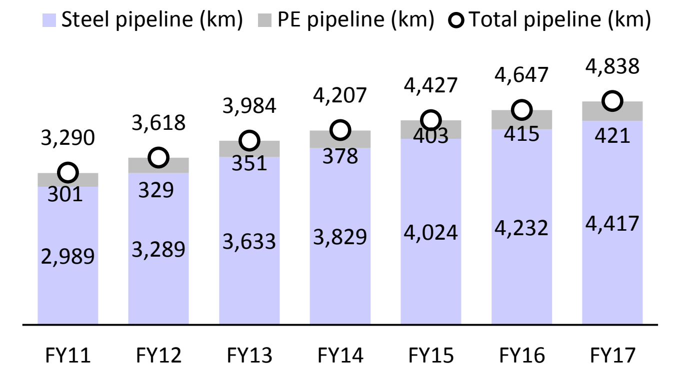
- MAHGL aims at increasing its penetration in its areas of operation. It has set a target of adding 96 CNG filling stations over the next five years as against 43 CNG stations added in the last five years. A greater proportion of these stations would be owned and operated by MAHGL. It currently has 203 retail outlets and plans to open more.
- MAHGL also intends to add over 656km of total pipelines in the next five years compared to 854km of pipelines added in the last five years. It currently has a network of 4,838km.

Exhibit 43: CNG outlets comprise primarily of online stations, which require pipeline connectivity



Source: Company, MOSL

Exhibit 44: Total pipeline network has increased at ~7% CAGR over FY11-17

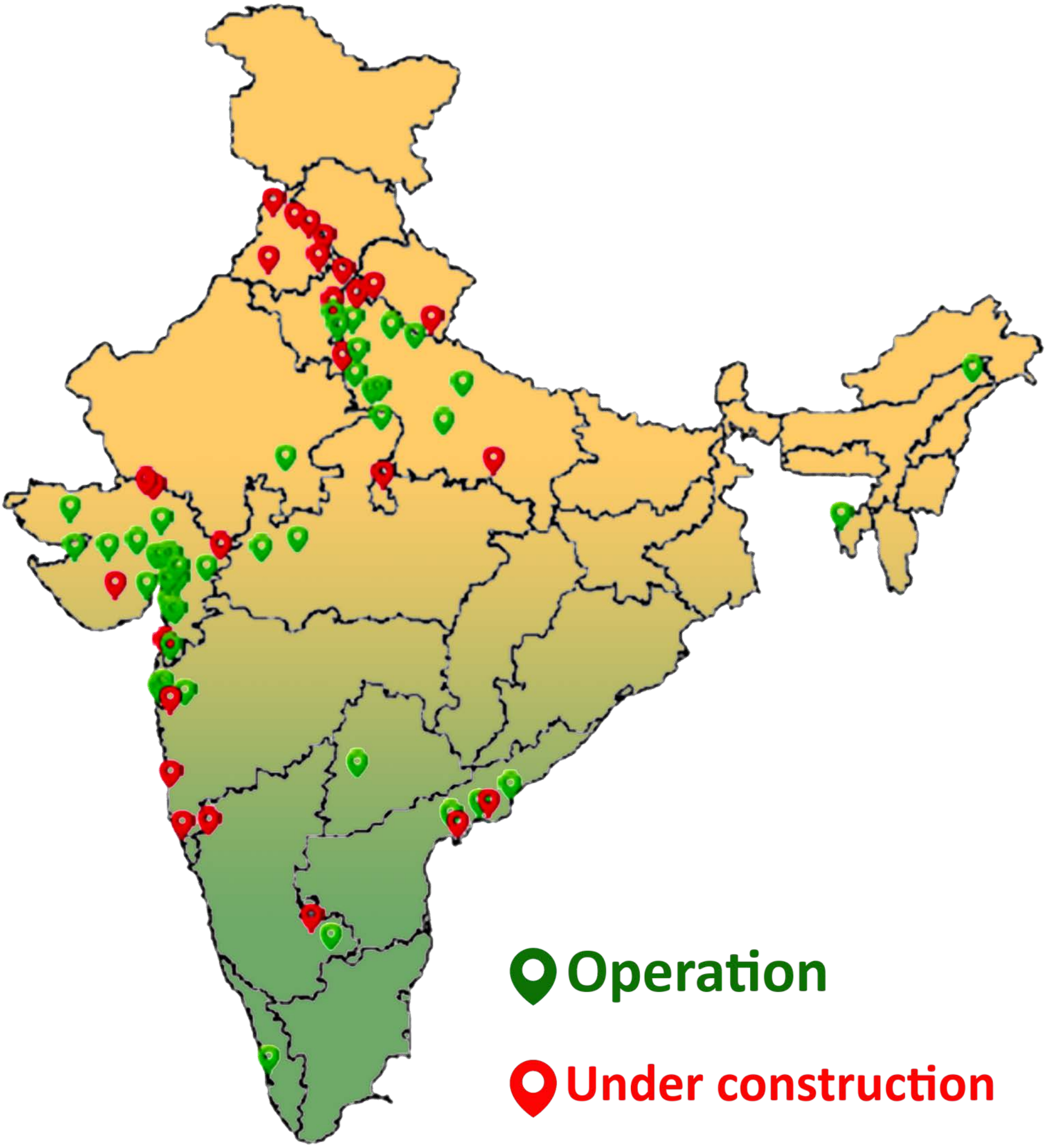


Source: Company, MOSL

Growth through bids in CGD bidding rounds; pursue inorganic growth

- Petroleum and Natural Gas Regulatory Board (PNGRB) has been mandated by the government to develop CGD infrastructure across India by inviting bids from interested developers. PNGRB has identified 223 areas, wherein it will invite bids through multiple CGD bidding rounds. Also, NITI Aayog has planned to expand CGD in 326 cities by 2022 from existing 87 authorized geographical areas (GA).
- MAHGL has already bid for North Goa Territory in the 6th CGD Bid round and bid in a couple of districts in the 8th CGD Bid Round. It has also clearly stated its intent to participate in further bidding rounds to expand its area of operations.

Exhibit 45: Cities authorized in India for gas distribution



Source: PNGRB, MOSL

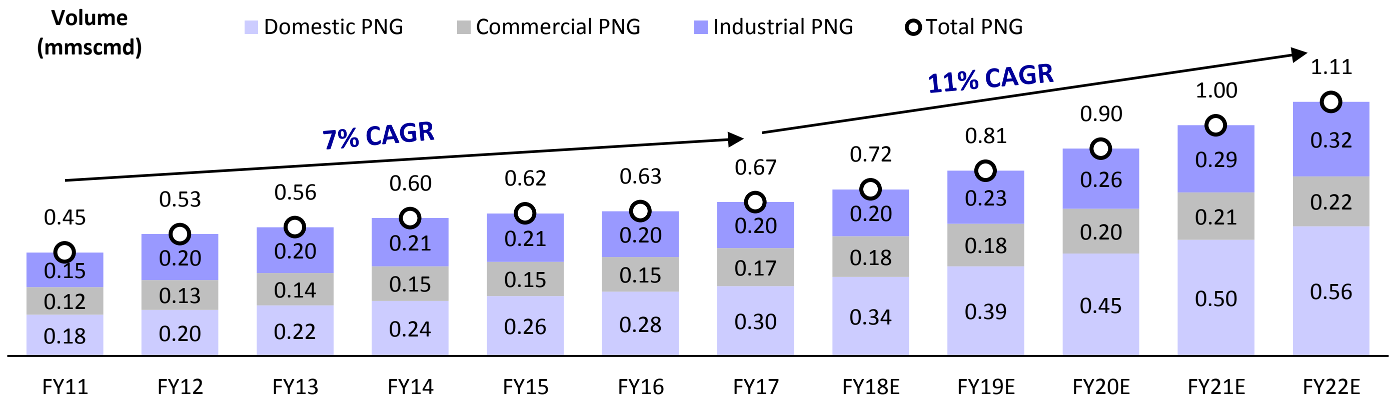
Industrial segment growth aided by newer areas

- **Commercial segment has seen good demand growth, with addition of 352 new consumers in FY17. We expect continued growth from the commercial segment, which has ~30% penetration.**
- **The industrial segment remains a laggard due to availability of cheaper but dirty alternatives like fuel oil and high price of real estate, forcing industries to move away from Mumbai. We expect ~2% growth in existing network. However, newer areas would help in 9% CAGR through FY17-20E.**

Expect PNG-domestic volumes to increase at 14% CAGR over FY17-20

- MAHGL's PNG volumes have grown at 7% CAGR during FY11-17, led by domestic PNG volumes, which grew at 9% during the same time. Commercial and industrial PNG volumes grew at 6% and 5%, respectively.
- We expect total PNG volumes to grow at 11% CAGR during FY17-22. While industrial PNG volumes are expected to grow at just 2% CAGR in existing areas, we expect growth of 9% CAGR during FY17-20, primarily from newer areas.

Exhibit 46: PNG volumes are expected to grow at 11% CAGR over FY17-22 v/s 7% CAGR in FY11-17

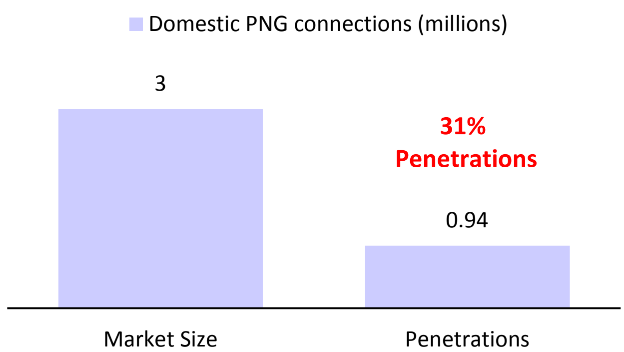


Source: Company, MOSL

Under-penetration to drive domestic and commercial PNG volumes

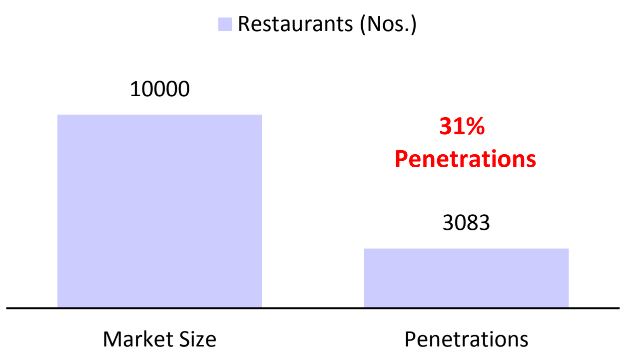
- MAHGL is strategically positioned to capture the benefits of this large and growing market, given the low penetration in its areas of operation. Further, the company's foray into Raigad district provides significant additional opportunities for the expansion of its CNG and PNG networks.

Exhibit 47: Lower penetration in target household markets



Source: Company, MOSL

Exhibit 48: 31% penetration in commercial market



Source: Company, MOSL

- With gradual phasing out of subsidized LPG cylinders by the government, consumers will be incentivized to purchase PNG due to significant saving.

Exhibit 49: Commercial PNG favorably priced v/s alternative fuels

Particulars	Unit	Price	Expensive vs PNG
PNG	INR/SCM	28.9	
Light Diesel Oil	INR/Ltr	32.9	14%
Commercial LPG	INR/Kg	54.9	37%

Source: Company, MOSL

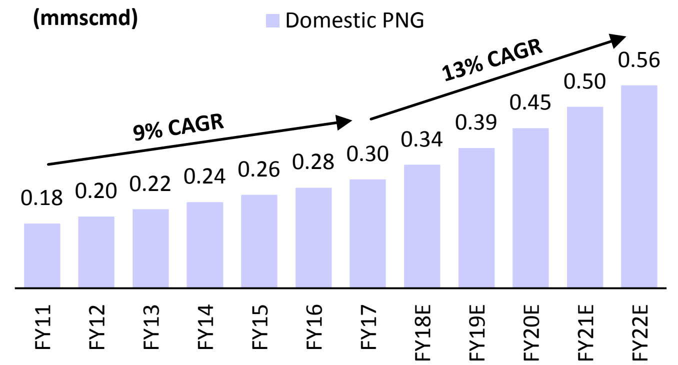
Exhibit 50: PNG provides savings with respect to non-subsidized LPG

Energy Cost for Cylinders	Number of Subsidized Cylinders			
(INR / Mn Kcal)	12	9	6	0
LPG	3101	3361	3621	4141
PNG	2873	2873	2873	2873
% Difference	**7%**	**15%**	**21%**	**31%**

Source: Company, MOSL

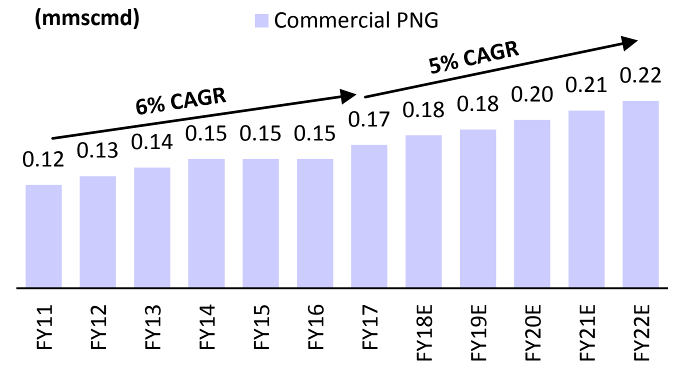
- The convenience of using PNG and a growing market will help in increasing the penetration of PNG in the domestic market in Mumbai, and Thane-Urban and adjoining municipalities.
- At present (Nov 2017) non subsidized LPG cylinder price of INR718.5 and Domestic PNG Price of INR25.69/SCM, LPG is costlier by 36%.
- Over FY17-20, due to lower penetration in the target markets, we expect domestic and commercial PNG volumes to grow at 14% and 24% CAGR.

Exhibit 51: Lower penetration in target household markets



Source: Company, MOSL

Exhibit 52: 31% penetration in commercial market

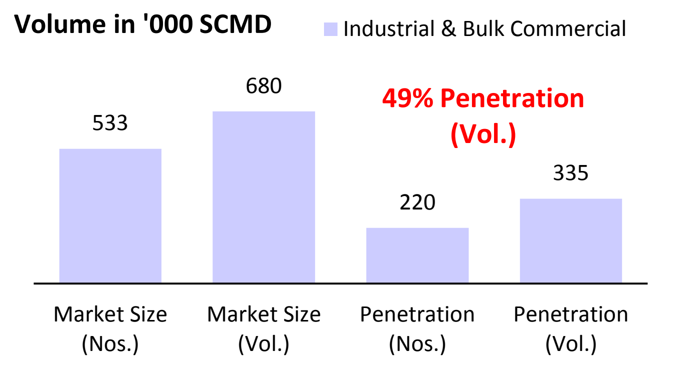


Source: Company, MOSL

Industrial segment volume growth to be aided by newer areas

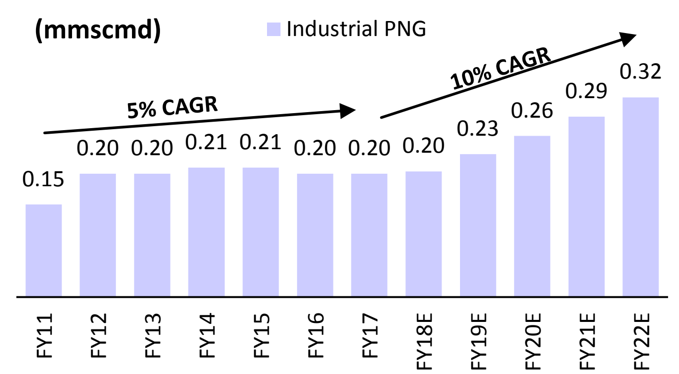
- Industrial segment remains a laggard due to availability of cheaper but dirty alternatives like fuel oil and high price of real estate, forcing industries to move away from Mumbai. We expect ~2% growth in PNG-Industrial in existing areas.
- However, we expect Raigad to add 0.05mmscmd of industrial volumes by FY20 which would take the growth in industrial segment to 9% CAGR during FY17-20.

Exhibit 53: 49% penetration in the industrial segment



Source: Company, MOSL

Exhibit 54: Volume boost primarily from newer areas



Source: Company, MOSL

SWOT analysis

Valuation and view

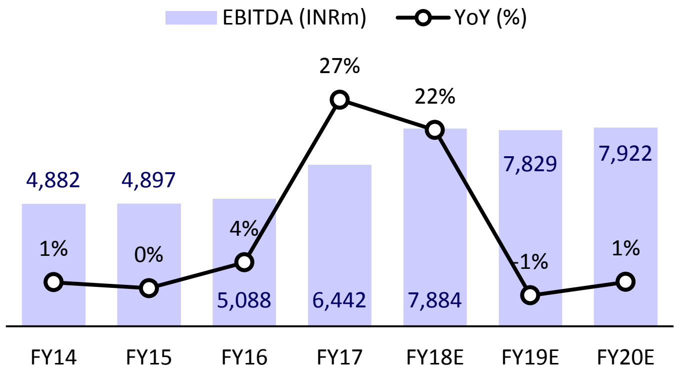
Initiate coverage with Neutral; target price: INR1,219

- **Only ~2,700 BEST buses run on CNG, as there is no mandatory requirement of running public transport on CNG as in Delhi. With rising concerns on pollution, similar mandate may come in Mumbai, boosting CNG sales for MAHGL.**
- **Unlike IGL, MAHGL does not enjoy the regulatory push with respect to commercial vehicles. Geographical location also would result in lesser inter-city travel than for IGL.**
- **Global peers are trading at 17.3x FY19E EPS. In comparison, Indian CGDs are trading at 24.4x FY19E EPS. Global peers have RoE of 12.0% as compared with 23.0% for the Indian CGDs.**
- **We expect 5%/6%/8% volume growth for MAHGL in FY18/19/20. We expect EBITDA CAGR of 7% during FY17-20 and EPS CAGR of 7%. Valuing the company at 22.5x (25% discount to IGL) average FY19-20E EPS, we arrive at a September 2018 target price of INR1,219, implying an upside of 11%. We initiate coverage with a Neutral recommendation.**

Expect EBITDA/EPS to grow at 7%/7% CAGR over FY17-20

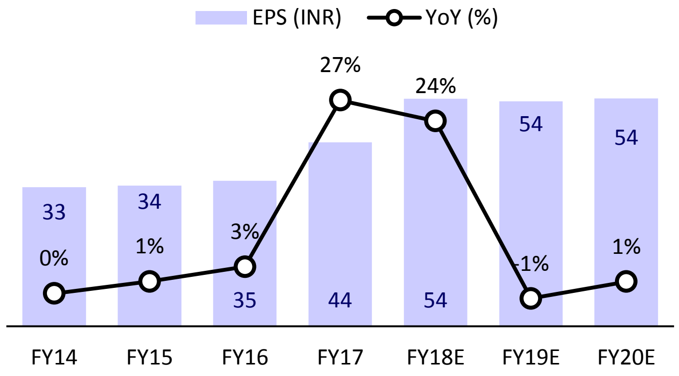
- MAHGL's EBITDA is set grow at 7% CAGR over FY17-20, led by volume growing at 6% CAGR and EBITDA/SCM at INR7.5/7.0 for FY19/20. EPS is set to grow at 7% CAGR over FY17-20.

Exhibit 55: EBITDA to grow at 7% CAGR over FY17-20



Source: Company, MOSL

Exhibit 56: EPS to grow at 7% CAGR over FY17-20

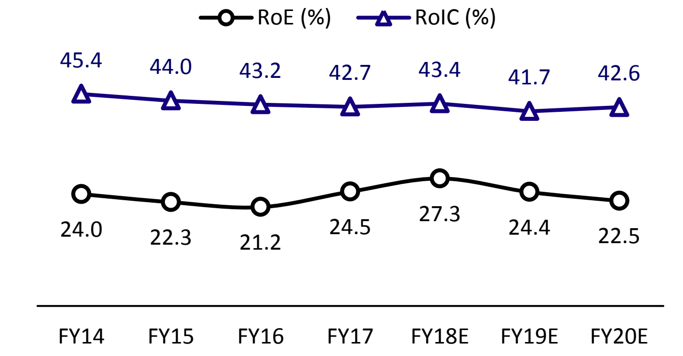


Source: Company, MOSL

Cash-rich balance sheet, strong return ratios

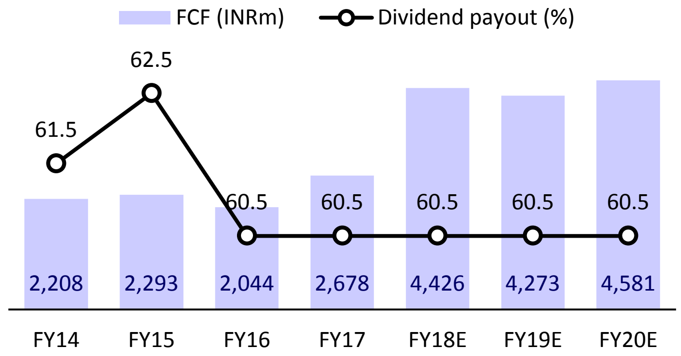
- MAHGL has consistently generated 21%+ RoE and FY11-17 CAGR for revenue/EBITDA/PAT has been 14% / 6% / 6.5%. It has healthy cash (and equivalents) balance of INR5.6b (in FY17) and average dividend payout of 50%/40% in the last 5/10 years.

Exhibit 57: Strong return ratios to continue



Source: Company, MOSL

Exhibit 58: Strong FCF generation with healthy dividend payout



Source: Company, MOSL

Exhibit 59: Valuation of MAHGL

Valuation table	
FY19-20E volume (mmscmd)	2.98
FY19-20E EBITDA/scm (INR)	7.25
FY19-20E EPS (INR)	54.2
Valuation PE (x)	22.5
Target price (INR/share)	**1,219**

Source: Company, MOSL

Exhibit 60: Sensitivity to volume & EBITDA/scm

Sensitivity to volume			
FY19-20E volume (mmscmd)	2.68	2.98	3.28
FY19-20E EBITDA/scm (INR)	7.25	7.25	7.25
FY19-20E EPS (INR)	47.8	54.2	61.0
Valuation PE (x)		22.5	
Target price (INR/share)	**1,076**	**1,219**	**1,373**
Sensitivity to EBITDA/scm			
FY19-20E EBITDA/scm (INR)	6.5	7.25	8.0
FY19-20E volume (mmscmd)	2.98	2.98	2.98
FY19-20E EPS (INR)	47.5	54.2	60.9
Valuation PE (x)		22.5	
Target price (INR/share)	**1,069**	**1,219**	**1,370**

Source: Company, MOSL

Bull & Bear case

Bull Case

- ☑ In our bull case, we assume that higher usage of gas from CNG and industrial segments would result in sales volume growing to 3.3/3.6mmscmd from 2.9/3.1mmscmd in FY19/20.
- ☑ We also assume that EBITDA/scm would increase from INR7.5/7.0 to INR8.0/scm for FY19/20.
- ☑ The above would result in average EPS of INR70.2 in FY19-20. Using 22.5x P/E, this would result in a target price of INR1,580 – an upside of 43%.

Bear Case

- ☑ In our bear case, we assume that CNG growth falters in the absence of regulatory compulsion, resulting in total sales volume decline from base case assumption of 2.9/3.1 mmscmd to 2.4/2.6 mmscmd in FY19/20.
- ☑ Increase in gas cost and the company is unable to increase prices, resulting in EBITDA/scm of INR6/scm in FY19/20.
- ☑ The above assumptions would result in average EPS of INR32.3 in FY19-20. Using 22.5x P/E, this would result in a target price of INR727 – a downside of 34%.

Exhibit 61: Scenario Analysis – Bull Case

Base case	FY18E	FY19E	FY20E
Volume (mmscmd)	2.7	2.9	3.1
EBITDA/scm	8.0	7.5	7.0
Bull case			
Volume (mmscmd)	2.7	3.3	3.6
EBITDA/scm	8.0	8.0	8.0
EBITDA	7,884	9,625	10,517
PBT	7,371	9,181	10,105
PAT	4,865	6,003	6,544
EPS	54.4	67.2	73.2
PE (x)		22.5x	
Target price (INR)		1,580	
Upside (%)		43%	

Source: Company, MOSL

Exhibit 62: Scenario Analysis – Bear Case

Base Case	FY18E	FY19E	FY20E
Volume (mmscmd)	2.7	2.9	3.1
EBITDA/scm	8.0	7.5	7.0
Bear case			
Volume (mmscmd)	2.7	2.4	2.6
EBITDA/scm	8.0	6.0	6.0
EBITDA	7,884	5,248	5,698
PBT	7,371	4,555	5,000
PAT	4,865	2,699	3,074
EPS	54.4	30.2	34.4
PE (x)		22.5x	
Target price (INR)		727	
Downside (%)		34%	

Source: Company, MOSL

Key risks

- **Majority of outlets owned and operated by others:** While MAHGL has presence through 203 outlets in and around Mumbai, only 14 are owned and operated directly by the company. It has to rely on OMCs and other parties for daily operations.
- **CNG sales:** CNG business accounts for over 74% of MAHGL's sales by volume and 71% of its total sales by value. Any slowdown due to lengthy queues at retail outlets or relatively lesser saving potential compared to petrol/diesel could adversely impact sales volume. Alternatively, a regulatory push could also pose an upside risk to our recommendation.
- **Competition:** MAHGL's natural gas marketing exclusivity in Mumbai and adjoining areas is subject to determination before the Delhi High Court. In case of an adverse judgment by the High Court, MAHGL would no longer be a sole distributor in Mumbai and adjoining areas. Entry of a new player would lead to potential loss of customers and decrease in margins. However, the possibility is low considering the fact that no new company would have any sourcing advantage over MAHGL.
- **Alternative fuels gaining popularity:** MAHGL competes with alternative fuels to gain customer share. Any decrease in the prices of crude oil or other alternative fuels could result in a shift in customer preference to these alternative fuels, which could impact MAHGL's business adversely. On the other hand, any ban on alternates like petcoke/fuel oil has the potential to double industrial sales for MAHGL, an upside risk to our recommendation.

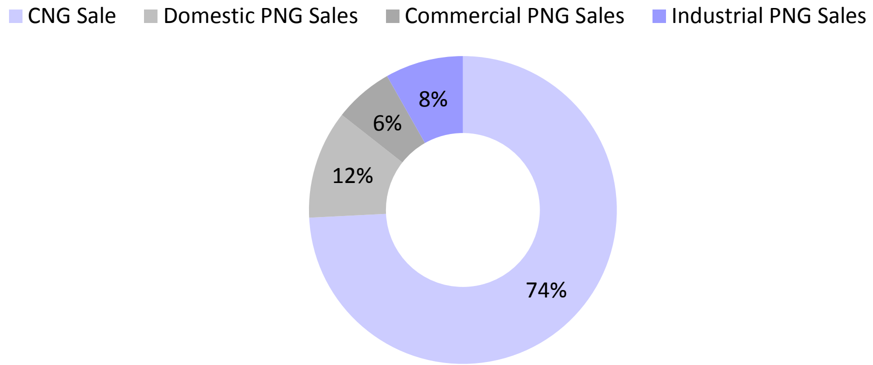
Company background

Mahanagar Gas (MAHGL) is one of the largest city gas distribution (CGD) companies in India. It has more than 20 years of experience in supplying natural gas in Mumbai and has exclusive infrastructure rights to distribute natural gas in three regions:

1. Mumbai – GA-1
2. Thane and adjoining areas – GA-2
3. Raigad – GA-3

MAHGL operates in two segments: (a) Compressed Natural Gas (CNG), and (b) Piped Natural Gas (PNG). The CNG segment is related to distribution of natural gas that is used as a transportation fuel. The PNG segment is related to distribution of natural gas for domestic household use as well as for commercial and industrial usage.

Exhibit 63: CNG sales contributed 74% to total sales by volume in FY17



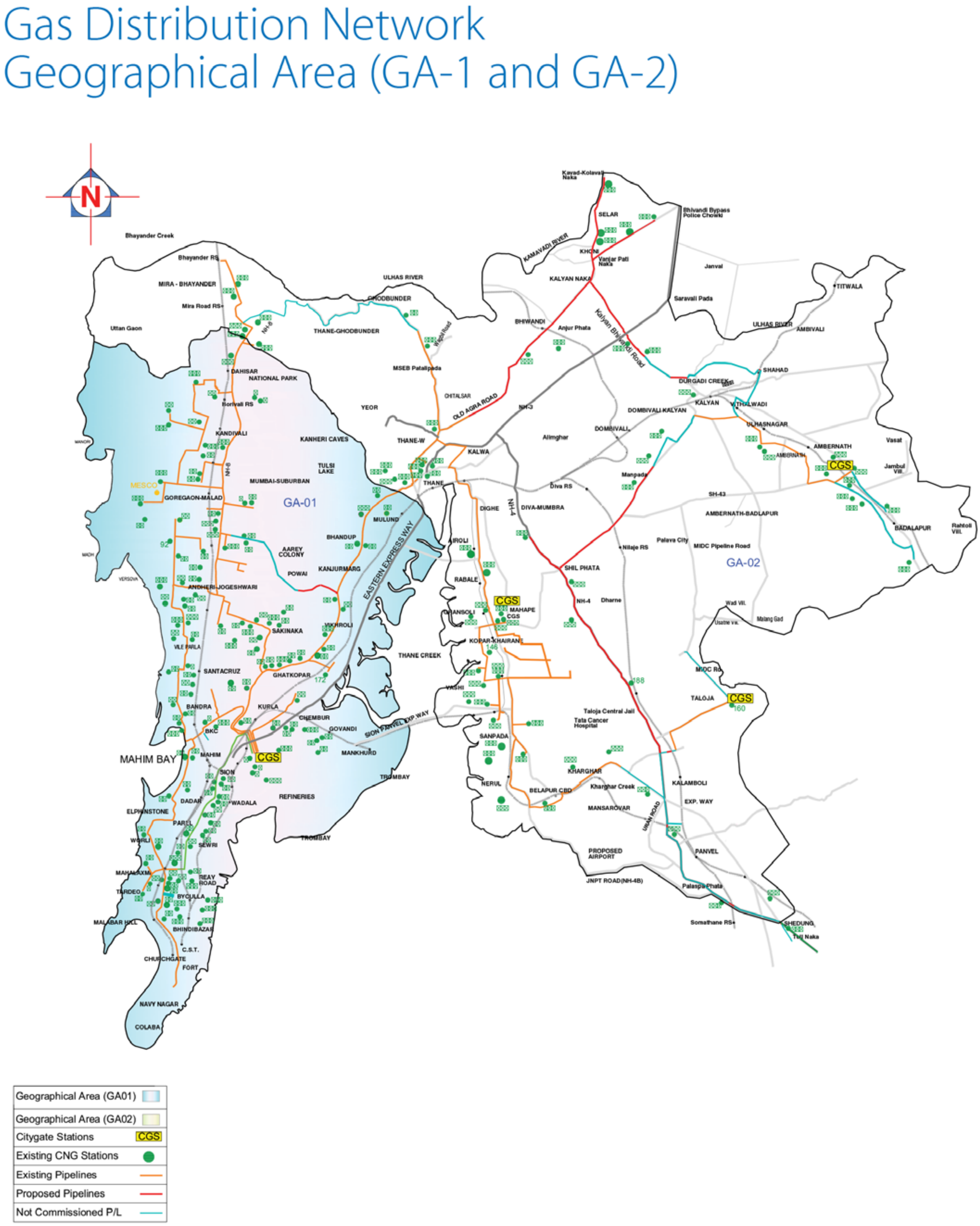
Source: Company, MOSL

Exhibit 64: Timelines of key events in MAHGL since inception

Year	Key Events
FY96	The company is incorporated with GAIL and BG as its promoters
FY98	Signed first NG supply and transportation contract with GAIL
FY09	Completed laying 2000km of PE pipeline in GA 1
FY11	Completed laying 200 km of steel pipeline in GA 1 and achieved customer base of 0.5 million domestic customers
FY12	Commissioned 150th CNG dispensing station
FY13	Completed laying more than 350 km of PE pipeline and 3.5km steel pipeline
FY14	Achieved a customer base of 1.0 million customers
FY16	Receives authorization for laying down pipeline network in Raigad district along with 5 years marketing and 25 years infrastructure exclusivity

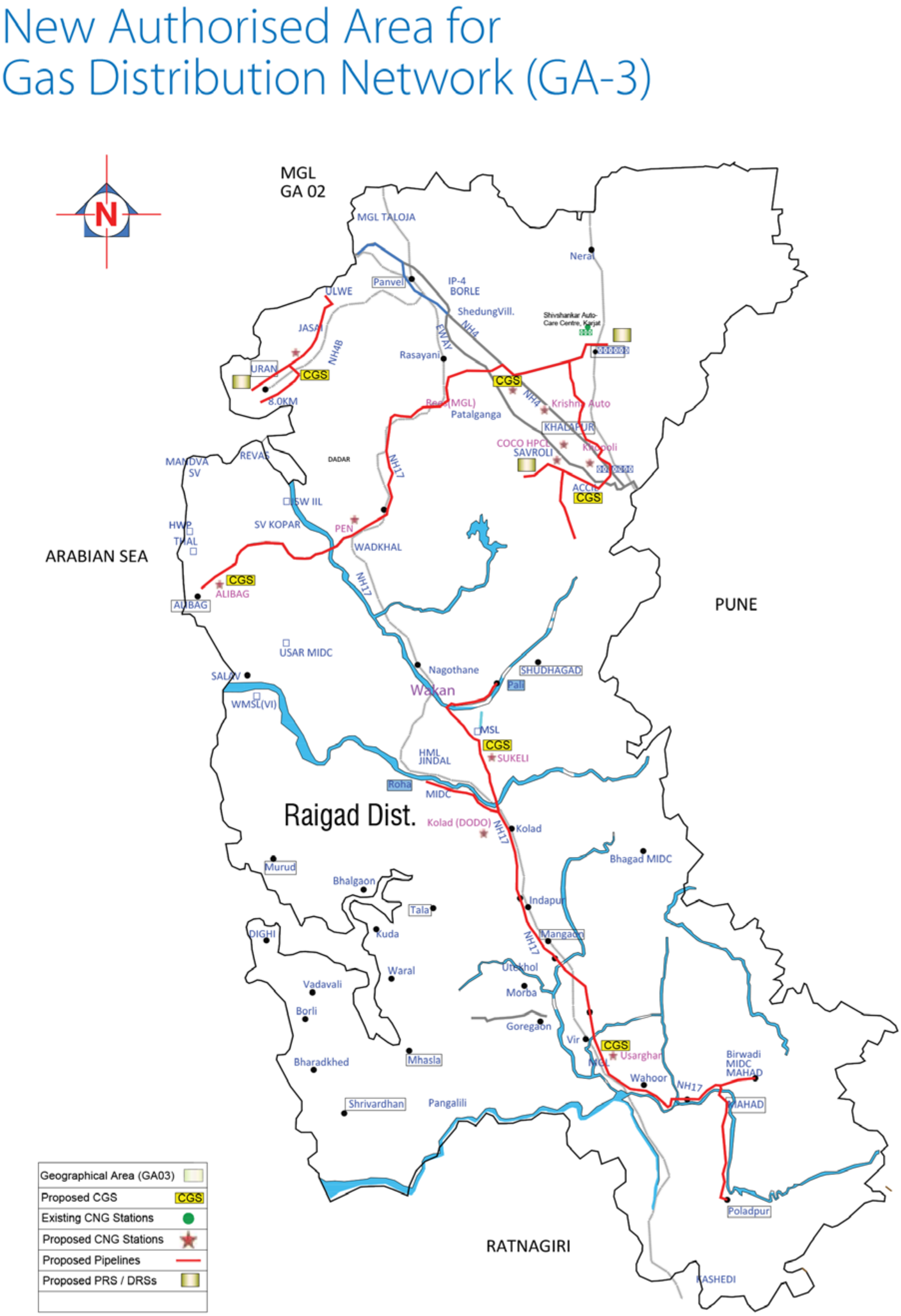
Source: Company, MOSL

Exhibit 65: MAHGL's current distribution network in Mumbai, Thane (GA-1 and GA-2)



Source: Company, MOSL

Exhibit 66: MAHGL's current distribution network in Raigad (GA-3)



Source: Company, MOSL

Management profile

Mr Rajeev Kumar Mathur, Managing Director

- He has over 34 years of relevant work experience and has served as GAIL's Executive Director – Marketing for four years.
- He holds a Bachelor's degree in Mechanical Engineering from Regional Engineering College, Durgapur, Burdwan. He also holds a Master's Degree in Business Administration from the Jodhpur University.

Mr Sunil M Ranade, Chief Financial Officer

- He has been with MAHGL for over 20 years. He is the Functional Head of Finance and Accounts group and manages Finance, Accounting and Forecasting to achieve the company's financial and strategic objectives.
- He holds a Bachelor's degree in Commerce from the University of Bombay. He is an associate member of the Institute of the Chartered Accountants of India and a member of the Institute of Company Secretaries of India.

Mr Rajesh P Wagle, Head – Commercial

- He has been with MAHGL for over 14 years. He is the Functional Head of the Commercial, Business Development and Marketing groups.
- He holds a Bachelor's degree in Chemical Engineering from the Indian Institute of Technology, Mumbai. He also holds a Master's degree in Computer Science from the University of Illinois at Urbana Champaign.

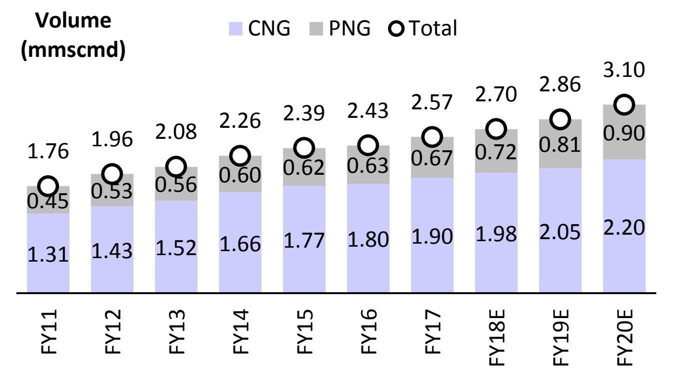
Story in charts

Exhibit 67: Snapshot of MAHGL's markets

Area	Territories included	End of Infra Exclusivity	End of Mktg. Exclusivity
GA-1	Mumbai & Greater Mumbai; Charge Area (CA): 23 administrative wards of BMC	2020	2012
GA-2	Thane City & adjoining contiguous areas including Mira Bhayender, Navi Mumbai, Thane City, Ambernath, Bhiwandi, Kalyan, Dombivali, Badalapur, Ulhasnagar, Panvel, Kharghar & Taloja	2030	2014
GA-3	Raigad district excluding areas already authorized	2040	

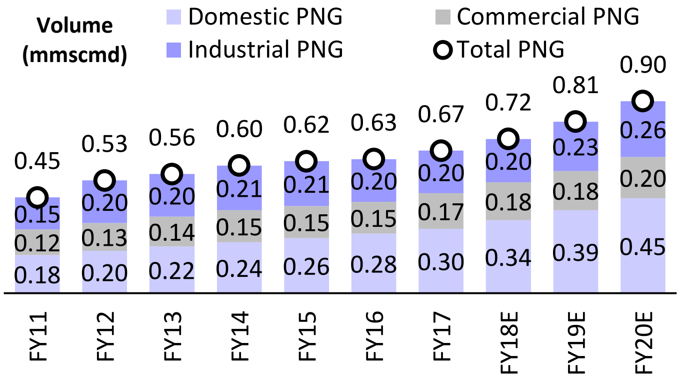
Source: Company, MOSL

Exhibit 68: Volume growth to continue, CNG to lead



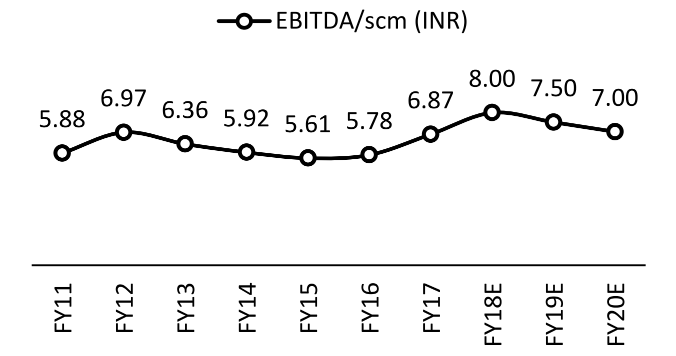
Source: Company, MOSL

Exhibit 69: Domestic and commercial volumes to drive PNG volumes



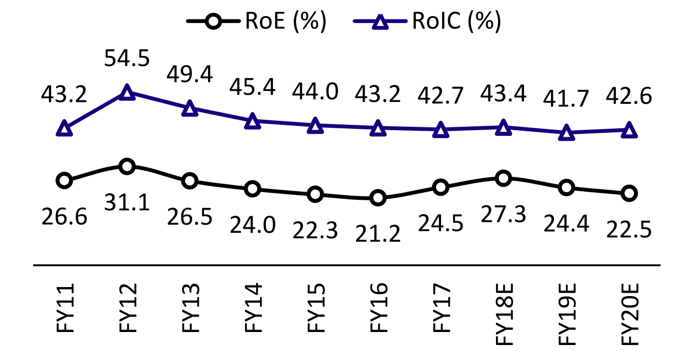
Source: Company, MOSL

Exhibit 70: EBITDA/scm to remain above INR6/scm



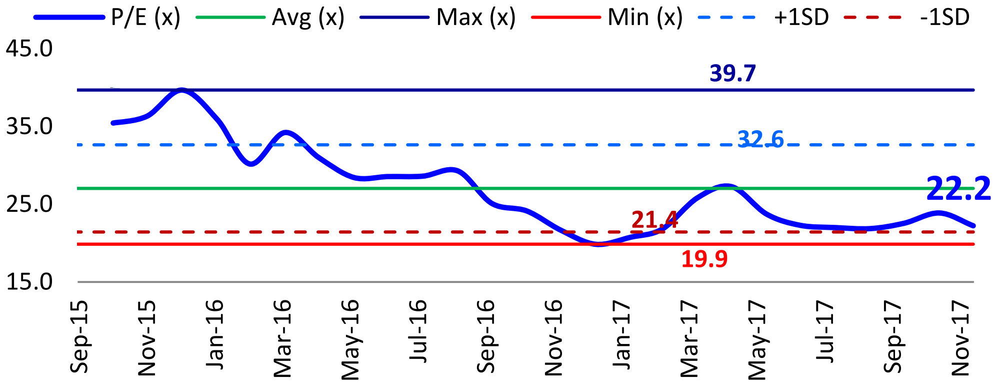
Source: Company, MOSL

Exhibit 71: Return rations to remain strong



Source: Company, MOSL

Exhibit 72: MAHGL – one-year forward P/E



Source: Company, MOSL

Financials and Valuations

Standalone - Income Statement (INR m)

Y/E March	FY13	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Total Income from Operations	**15,144**	**18,852**	**20,949**	**20,783**	**20,340**	**22,879**	**24,496**	**27,125**
Change (%)	15.7	24.5	11.1	-0.8	-2.1	12.5	7.1	10.7
Raw Materials	8,122	11,443	12,957	12,297	10,184	11,093	12,533	14,721
Employees Cost	522	598	691	563	600	631	668	724
Other Expenses	1,673	1,928	2,404	2,830	3,114	3,272	3,466	3,758
Total Expenditure	**10,317**	**13,970**	**16,053**	**15,690**	**13,898**	**14,995**	**16,667**	**19,203**
% of Sales	68.1	74.1	76.6	75.5	68.3	65.5	68.0	70.8
EBITDA	**4,827**	**4,882**	**4,897**	**5,093**	**6,442**	**7,884**	**7,829**	**7,922**
Margin (%)	31.9	25.9	23.4	24.5	31.7	34.5	32.0	29.2
Depreciation	711	807	799	826	951	1,095	1,180	1,252
EBIT	**4,116**	**4,075**	**4,098**	**4,267**	**5,490**	**6,788**	**6,649**	**6,670**
Int. and Finance Charges	11	2	12	22	10	10	10	10
Other Income	319	345	407	472	527	592	634	702
PBT bef. EO Exp.	**4,424**	**4,418**	**4,493**	**4,716**	**6,007**	**7,371**	**7,273**	**7,362**
EO Items	0	0	0	0	0	0	0	0
PBT after EO Exp.	**4,424**	**4,418**	**4,493**	**4,716**	**6,007**	**7,371**	**7,273**	**7,362**
Total Tax	1,439	1,445	1,483	1,607	2,072	2,506	2,464	2,493
Tax Rate (%)	32.5	32.7	33.0	34.1	34.5	34.0	33.9	33.9
Reported PAT	**2,985**	**2,972**	**3,010**	**3,109**	**3,934**	**4,865**	**4,810**	**4,869**
Adjusted PAT	**2,985**	**2,972**	**3,010**	**3,109**	**3,934**	**4,865**	**4,810**	**4,869**
Change (%)	-3.0	-0.4	1.3	3.3	26.5	23.6	-1.1	1.2
Margin (%)	19.7	15.8	14.4	15.0	19.3	21.3	19.6	17.9

Standalone - Balance Sheet (INR m)

Y/E March	FY13	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Equity Share Capital	893	893	893	893	893	893	893	893
Total Reserves	10,933	12,076	13,181	14,386	15,939	17,859	19,758	21,680
Net Worth	**11,826**	**12,970**	**14,075**	**15,280**	**16,833**	**18,753**	**20,651**	**22,573**
Total Loans	98	80	156	138	138	138	138	138
Deferred Tax Liabilities	797	887	1,027	1,181	1,181	1,181	1,181	1,181
Capital Employed	**12,721**	**13,937**	**15,258**	**16,599**	**18,152**	**20,072**	**21,971**	**23,892**
Gross Block	13,737	15,176	16,714	18,450	22,631	24,667	26,274	27,796
Less: Accum. Deprn.	4,480	5,261	6,074	6,854	7,805	8,900	10,080	11,332
Net Fixed Assets	**9,257**	**9,915**	**10,640**	**11,596**	**14,826**	**15,767**	**16,194**	**16,464**
Capital WIP	3,148	3,454	3,796	4,289	1,608	1,072	964	943
Total Investments	**3,021**	**3,421**	**3,715**	**3,882**	**3,882**	**3,882**	**3,882**	**3,882**
Curr. Assets, Loans&Adv.	**2,367**	**2,904**	**3,505**	**3,797**	**4,548**	**6,856**	**9,008**	**11,602**
Account Receivables	902	1,093	962	893	874	983	1,052	1,165
Cash and Bank Balance	660	888	1,449	1,721	2,534	4,597	6,582	8,908
Loans and Advances	668	765	920	1,003	981	1,104	1,182	1,309
Curr. Liability & Prov.	**5,072**	**5,757**	**6,398**	**6,964**	**6,711**	**7,504**	**8,078**	**8,998**
Account Payables	864	1,064	1,120	1,119	991	1,070	1,189	1,370
Other Current Liabilities	2,324	2,710	3,238	3,809	3,727	4,193	4,489	4,971
Provisions	1,884	1,984	2,041	2,036	1,993	2,241	2,400	2,657
Net Current Assets	**-2,705**	**-2,853**	**-2,893**	**-3,167**	**-2,163**	**-648**	**930**	**2,604**
Appl. of Funds	**12,721**	**13,937**	**15,258**	**16,599**	**18,152**	**20,072**	**21,971**	**23,892**

E: MOSL Estimates; Financials are in MOSL format and may differ from MGL's reported format

Financials and Valuations

Ratios								
Y/E March	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18E**	**FY19E**	**FY20E**
Basic (INR)								
EPS	**33.4**	**33.3**	**33.7**	**34.8**	**44.0**	**54.4**	**53.8**	**54.5**
Cash EPS	41.4	42.3	42.6	44.0	54.7	66.7	67.0	68.5
BV/Share	132.4	145.2	157.5	171.0	188.4	209.9	231.2	252.7
DPS	17.5	17.5	17.5	17.5	22.1	27.4	27.1	27.4
Payout (%)	61.3	61.5	62.5	60.5	60.5	60.5	60.5	60.5
Valuation (x)								
P/E			32.7	31.7	25.0	20.2	20.5	20.2
Cash P/E			25.8	25.0	20.2	16.5	16.4	16.1
P/BV			7.0	6.4	5.8	5.3	4.8	4.4
EV/Sales			4.6	4.7	4.7	4.1	3.8	3.3
EV/EBITDA			19.8	19.0	14.9	11.9	11.8	11.3
Dividend Yield (%)	1.6	1.6	1.6	1.6	2.0	2.5	2.5	2.5
FCF per share	24.0	24.7	25.7	22.9	30.0	49.5	47.8	51.3
Return Ratios (%)								
RoE	26.5	24.0	22.3	21.2	24.5	27.3	24.4	22.5
RoCE	26.4	23.8	22.1	21.1	24.3	27.2	24.3	22.4
RoIC	49.4	45.4	44.0	43.3	42.7	43.4	41.8	42.6
Working Capital Ratios								
Fixed Asset Turnover (x)	1.1	1.2	1.3	1.1	0.9	0.9	0.9	1.0
Asset Turnover (x)	1.2	1.4	1.4	1.3	1.1	1.1	1.1	1.1
Inventory (Days)	3	3	3	3	3	3	3	3
Debtor (Days)	22	21	17	16	16	16	16	16
Creditor (Days)	21	21	20	20	18	17	18	18
Leverage Ratio (x)								
Current Ratio	0.5	0.5	0.5	0.5	0.7	0.9	1.1	1.3
Interest Cover Ratio	384.6	1,940.4	338.6	192.2	533.0	659.1	645.6	647.6
Net Debt/Equity	-0.3	-0.3	-0.4	-0.4	-0.4	-0.4	-0.5	-0.6

Standalone - Cash Flow Statement								(INR m)
Y/E March	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18E**	**FY19E**	**FY20E**
OP/(Loss) before Tax	4,424	4,418	4,493	4,687	6,007	7,371	7,273	7,362
Depreciation	711	807	799	841	951	1,095	1,180	1,252
Interest & Finance Charges	0	2	12	30	-516	-582	-624	-692
Direct Taxes Paid	-1,465	-1,286	-1,390	-1,501	-2,072	-2,506	-2,464	-2,493
(Inc)/Dec in WC	932	301	660	471	-191	548	407	651
CF from Operations	**4,602**	**4,243**	**4,574**	**4,527**	**4,178**	**5,926**	**5,773**	**6,081**
Others	-213	-266	-307	-273	0	0	0	0
CF from Operating incl EO	**4,389**	**3,976**	**4,267**	**4,254**	**4,178**	**5,926**	**5,773**	**6,081**
(Inc)/Dec in FA	-2,249	-1,768	-1,974	-2,210	-1,500	-1,500	-1,500	-1,500
Free Cash Flow	**2,140**	**2,208**	**2,293**	**2,044**	**2,678**	**4,426**	**4,273**	**4,581**
(Pur)/Sale of Investments	-666	-400	-278	-127	0	0	0	0
Others	246	271	307	269	527	592	634	702
CF from Investments	**-2,669**	**-1,897**	**-1,945**	**-2,068**	**-973**	**-908**	**-866**	**-798**
Issue of Shares	0	0	0	0	0	0	0	0
Inc/(Dec) in Debt	-6	-19	-18	-18	0	0	0	0
Interest Paid	-6	-4	-8	-2	-10	-10	-10	-10
Dividend Paid	-1,558	-1,829	-1,829	-1,882	-2,381	-2,944	-2,911	-2,947
Others	0	0	94	-13	0	0	0	0
CF from Fin. Activity	**-1,570**	**-1,852**	**-1,761**	**-1,914**	**-2,392**	**-2,955**	**-2,922**	**-2,957**
Inc/Dec of Cash	**150**	**228**	**561**	**272**	**813**	**2,064**	**1,985**	**2,325**
Opening Balance	510	660	888	1,449	1,721	2,534	4,597	6,582
Closing Balance	**660**	**888**	**1,449**	**1,721**	**2,534**	**4,597**	**6,582**	**8,908**

Gujarat Gas

BSE SENSEX	S&P CNX
33,679	10,390

GUJARAT GAS

Stock Info

Bloomberg	GUJGA IN
Equity Shares (m)	137.0
52-Week Range (INR)	974 / 500
1, 6, 12 Rel. Per (%)	-13/1/32
M.Cap. (INR b)	124.9
M.Cap. (USD b)	1.9
Avg Val, INRm	69
Free float (%)	39.1

Financials Snapshot (INR b)

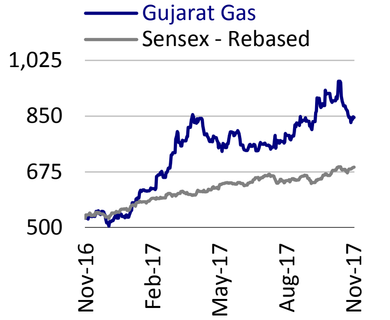
Y/E MAR	2018E	2019E	2020E
Net Sales	61.1	73.8	82.3
EBITDA	8.8	10.8	12.3
PAT	3.1	4.6	5.7
EPS (INR)	22.9	33.6	41.3
EPS Gr. (%)	42.5	46.8	23.0
BV/Sh (INR)	138.1	165.4	199.0
RoE (%)	17.8	22.1	22.7
RoCE (%)	15.7	19.8	22.5
P/E (x)	39.6	27.0	22.0
P/BV (x)	6.6	5.5	4.6
EV/EBITDA (x)	16.8	13.3	11.5
Div. Yield (%)	0.4	0.6	0.7

Shareholding pattern (%)

As On	Sep-17	Jun-17	Sep-16
Promoter	60.9	60.9	60.9
DII	2.4	2.5	4.1
FII	14.9	14.8	13.6
Others	21.8	21.8	21.4

FII Includes depository receipts

Stock Performance (1-year)



CMP: INR842 TP: INR1,011 (+20%) Upgrade to Buy

Despite volatility, potential remains

See great potential across segments; upgrade to Buy

- ~70% exposure to the industrial segment means that volatility in both volumes and margins would continue.
- Potential is huge in terms of newly awarded but not developed areas. However, challenges would remain, as the industrial segment remains the main driver of volume growth in these areas.
- The NCR has 421 retail outlets while the whole of Gujarat has only 396 CNG stations. As the company increases focus on CNG stations, it would bring more conversions and stability to volumes and earnings.
- GUJGA has higher volume growth than MAHGL but has greater volatility in its earnings. On expectation of restriction in usage of petcoke/fuel oil in the state and high growth opportunities, we raise our PE from 15x to 27x (10% discount to IGL). Valuing the company at 27x average FY19-20E EPS of INR37.4, we arrive at a target price of INR1,011, implying an upside of 20%. We upgrade the stock from Sell to Buy.

Abundant potential

- Presence in one of the most industrialized states, upcoming dedicated freight corridor and six new areas yet to be developed provide potential for growth. Each of the new areas – Amreli, Ahmedabad-Rural, Dahej, Dahod, Panchmahal and Anand – has a potential of 0.2-0.5mmscmd. Thane could add peak of 1-1.5mmcsmd.
- Gujarat has more than 71,000 buses, hardly any running on CNG. Increase in CNG stations and possible regulatory push could have exponential impact on CNG volumes. Even 25% conversion could increase CNG sales volumes by 47%.
- Penetration of PNG in the residential segment is only 18% due to fewer high rise buildings compared with the NCR or Mumbai.

Highly volatile volumes and margins

- The industrial segment accounts for 70% of sales volume. As consumers switch easily between gas and alternative fuels, GUJGA' sales volumes and margins remain volatile.
- Since FY16, GUJGA's quarterly sales volumes have varied from 5.1mmscmd to 6.1mmscmd, and are currently at 5.6mmscmd. EBITDA/scm has varied from INR2.7 to INR4.8, and is currently at INR4.5.
- The company aims to add ~100 CNG outlets over FY18-20. Better availability could result in higher conversions.

Valuation and view

- We expect 14%/12%/11% volume growth for GUJGA in FY18/19/20. We expect EBITDA CAGR of 18% and EPS CAGR of 37% over FY17-20.
- Higher exposure to the industrial segment and competition from cheaper alternatives results in high volatility in both volumes and EBITDA/scm. However, potential is high. In Morbi alone, where the company sells ~2.7mmscmd, presents an opportunity of ~6mmscmd. We have already seen judiciary-led activism against polluting fuels in the National Capital Region (NCR) and nearby states of Rajasthan, UP and Haryana. Any focus on pollution in Gujarat would result in sharp volume growth. We raise our target multiple from 15x to 27x, 10% discount to IGL and upgrade the stock to **Buy,** with a target price of INR1,011 (revised from INR721).

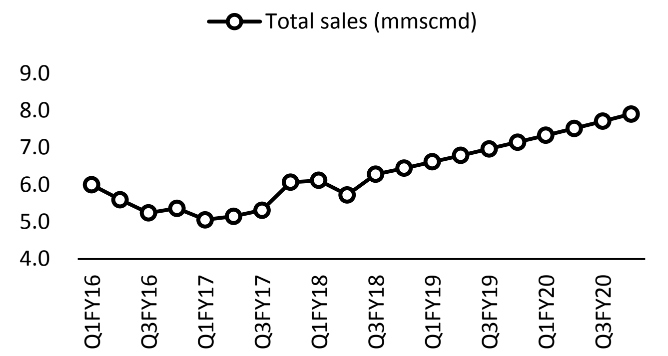
Exhibit 73: We value GUJGA at 27x FY19-20E EPS to arrive at a value of INR1,011/share

Valuation table	
FY19/20 volume (mmscmd)	6.9/7.6
FY19/20 EBITDA/scm (INR)	4.3/4.4
FY19-20 EPS (INR)	37.4
Valuation PE (x)	27.0
Target price (INR/share)	**1,011**

Source: Company, MOSL

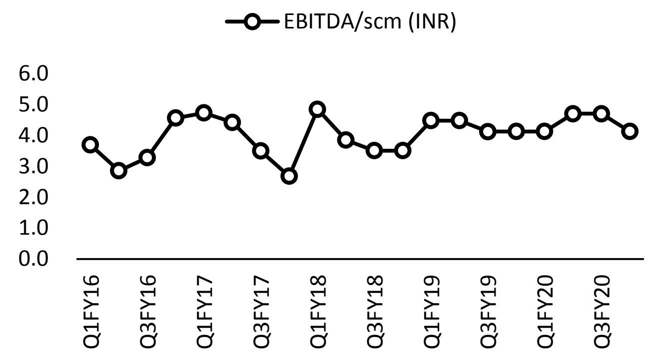
Story in charts

Exhibit 74: Excellent growth potential



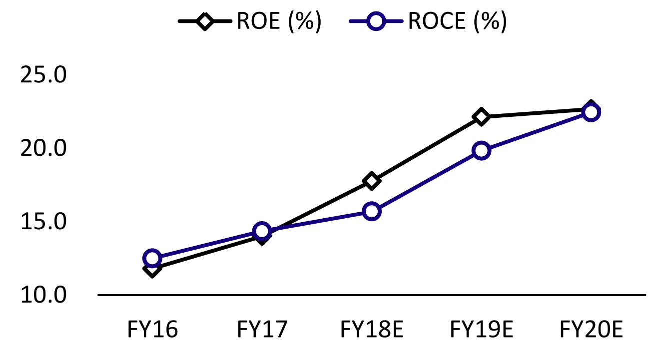
Source: Company, MOSL

Exhibit 75: EBITDA/scm likely to grow; volatility would be key



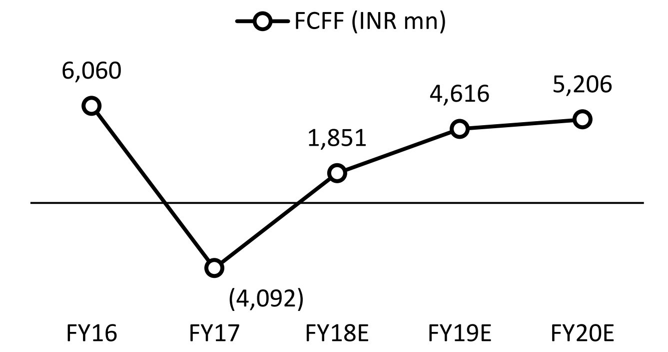
Source: Company, MOSL

Exhibit 76: Return ratios to improve



Source: Company, MOSL

Exhibit 77: Free cash flow to improve



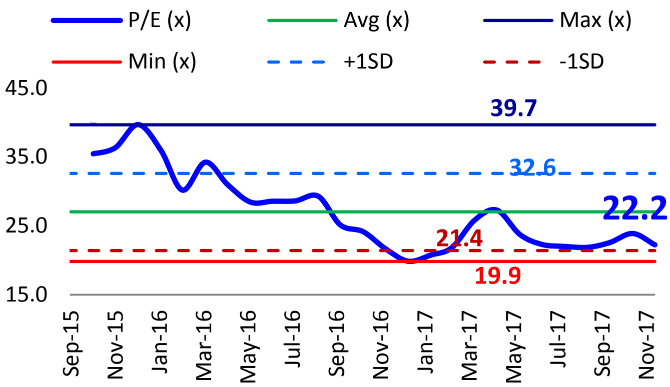
Source: Company, MOSL

Exhibit 78: We value GUJGA at 27x FY19-20E EPS to arrive at a value of INR1,011/share

Valuation table	
FY19-20E volume (mmscmd)	7.25
FY19-20E EBITDA/scm (INR)	4.36
FY19-20E EPS (INR)	37.45
Valuation PE (x)	27.0
Target price (INR/share)	**1,011**

Source: Company, MOSL

Exhibit 79: GUJGA – one-year forward P/E



Source: Company, MOSL

Financials and Valuations

Standalone - Income Statement (INR Million)

Y/E March	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Income from Operations	77,974	90,063	61,059	50,927	61,118	73,757	82,285
Total Income from Operations	**77,974**	**90,063**	**61,059**	**50,927**	**61,118**	**73,757**	**82,285**
Change (%)	-	15.5	-32.2	-16.6	20.0	20.7	11.6
Total Expenditure	**72,233**	**79,001**	**53,794**	**43,488**	**52,335**	**62,940**	**70,020**
% of Sales	92.6	87.7	88.1	85.4	85.6	85.3	85.1
EBITDA	**5,741**	**11,062**	**7,264**	**7,440**	**8,783**	**10,817**	**12,266**
Margin (%)	7.4	12.3	11.9	14.6	14.4	14.7	14.9
Depreciation	2,826	2,377	2,457	2,672	2,840	2,949	3,083
EBIT	**2,915**	**8,685**	**4,808**	**4,768**	**5,944**	**7,868**	**9,183**
Int. and Finance Charges	3,003	3,332	2,475	2,090	1,609	1,504	1,294
Other Income	1,101	1,071	445	371	446	538	600
PBT bef. EO Exp.	**1,012**	**6,424**	**2,779**	**3,050**	**4,780**	**6,902**	**8,489**
EO Items	-90	-10	-256	0	0	0	0
PBT after EO Exp.	**922**	**6,414**	**2,523**	**3,050**	**4,780**	**6,902**	**8,489**
Current Tax	638	1,979	648	839	1,631	2,278	2,801
Tax Rate (%)	69.2	30.8	25.7	27.5	34.1	33.0	33.0
Reported PAT	**284**	**4,436**	**1,875**	**2,210**	**3,150**	**4,624**	**5,687**
Adjusted PAT	**312**	**4,443**	**2,065**	**2,210**	**3,150**	**4,624**	**5,687**
Change (%)	-	1,323.3	-53.5	7.0	42.5	46.8	23.0
Margin (%)	0.4	4.9	3.4	4.3	5.2	6.3	6.9

Standalone - Balance Sheet (INR Million)

Y/E March	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Equity Share Capital	1,377	1,377	1,377	1,377	1,377	1,377	1,377
Total Reserves	14,981	18,532	13,718	15,072	17,633	21,394	26,019
Net Worth	**16,358**	**19,909**	**15,095**	**16,449**	**19,010**	**22,771**	**27,396**
Deferred Tax Liabilities	2,892	3,528	9,865	10,018	10,018	10,018	10,018
Total Loans	33,311	31,960	17,066	22,987	22,987	19,987	16,987
Capital Employed	**52,561**	**55,397**	**42,025**	**49,453**	**52,015**	**52,775**	**54,401**
Gross Block	47,550	50,114	54,153	59,263	61,275	63,884	66,971
Less: Accum. Deprn.	2,815	5,247	7,704	10,376	13,216	16,164	19,247
Net Fixed Assets	**44,735**	**44,867**	**46,449**	**48,887**	**48,059**	**47,720**	**47,724**
Capital WIP	2,701	3,574	4,682	5,057	8,046	10,437	12,349
Total Investments	**8,410**	**10,990**	**1,218**	**696**	**696**	**696**	**696**
Curr. Assets, Loans&Adv.	**10,694**	**9,495**	**7,544**	**8,248**	**5,531**	**6,314**	**7,435**
Inventory	375	411	413	417	272	327	364
Account Receivables	5,451	3,606	3,005	3,475	2,447	2,953	3,295
Cash and Bank Balance	2,116	2,378	678	608	708	494	944
Loans and Advances	2,752	3,101	3,447	3,748	2,104	2,539	2,833
Curr. Liability & Prov.	**13,978**	**13,529**	**17,868**	**13,435**	**10,317**	**12,390**	**13,803**
Account Payables	5,260	4,262	2,515	3,140	3,154	3,794	4,220
Other Current Liabilities	8,613	8,193	14,986	9,896	6,723	8,113	9,051
Provisions	105	1,074	367	399	439	483	532
Net Current Assets	**-3,284**	**-4,034**	**-10,324**	**-5,187**	**-4,786**	**-6,076**	**-6,368**
Appl. of Funds	**52,561**	**55,397**	**42,025**	**49,453**	**52,015**	**52,776**	**54,401**

E: MOSL Estimates

Financials and Valuations

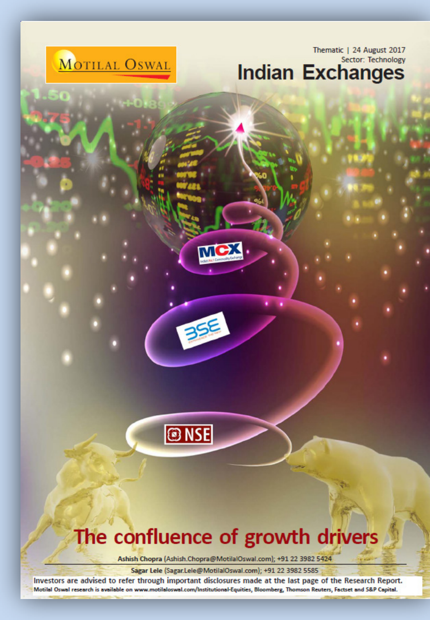
Ratios

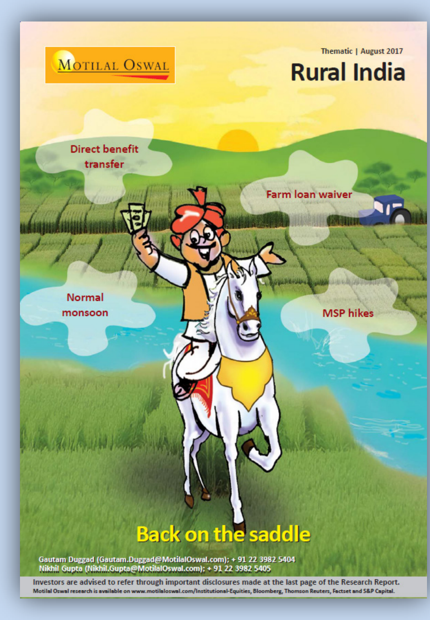
Y/E March	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
Basic (INR)							
EPS	**2.3**	**32.3**	**15.0**	**16.1**	**22.9**	**33.6**	**41.3**
Cash EPS	22.8	49.5	32.8	35.5	43.5	55.0	63.7
BV/Share	118.8	144.6	109.6	119.5	138.1	165.4	199.0
DPS	0.0	5.0	2.1	2.5	3.6	5.2	6.4
Payout (%)	0.0	18.7	18.7	18.7	18.7	18.7	18.7
Valuation (x)							
P/E	400.0	28.1	60.5	56.5	39.6	27.0	22.0
Cash P/E	39.8	18.3	27.6	25.6	20.8	16.5	14.2
P/BV	7.6	6.3	8.3	7.6	6.6	5.5	4.6
EV/Sales	2.0	1.7	2.3	2.9	2.4	2.0	1.7
EV/EBITDA	27.2	14.0	19.4	19.8	16.8	13.3	11.5
Dividend Yield (%)	0.0	0.6	0.2	0.3	0.4	0.6	0.7
FCF per share	5.4	60.2	44.0	-29.7	13.4	33.5	37.8
Return Ratios (%)							
RoE	3.8	24.5	11.8	14.0	17.8	22.1	22.7
RoCE	16.2	19.2	12.5	14.4	15.7	19.8	22.5
Working Capital Ratios							
Asset Turnover (x)	1.5	1.6	1.5	1.0	1.2	1.4	1.5
Inventory (Days)	2	2	2	3	2	2	2
Debtor (Days)	26	15	18	25	15	15	15
Creditor (Days)	25	17	15	23	19	19	19
Working Cap. Turnover (Days)	-25	-26	-66	-42	-33	-33	-32
Leverage Ratio (x)							
Current Ratio	0.8	0.7	0.4	0.6	0.5	0.5	0.5
Interest Cover Ratio	1.0	2.6	1.9	2.3	3.7	5.2	7.1
Debt/Equity	2.0	1.6	1.1	1.4	1.2	0.9	0.6

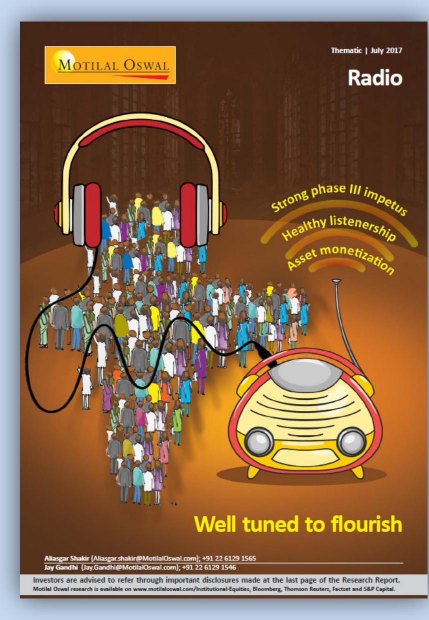
Standalone - Cash Flow Statement (INR Million)

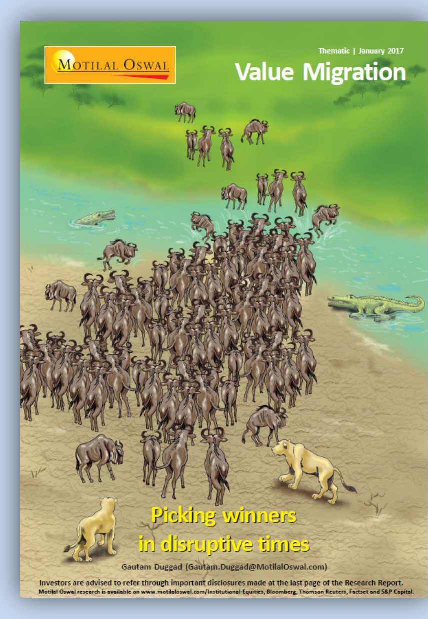
Y/E March	FY14	FY15	FY16	FY17	FY18E	FY19E	FY20E
OP/(Loss) before Tax	922	6,414	2,779	3,050	4,780	6,902	8,489
Depreciation	2,826	2,377	2,457	2,672	2,840	2,949	3,083
Interest & Finance Charges	3,003	3,332	2,029	1,718	1,163	966	694
Direct Taxes Paid	-1,599	-1,461	-648	-839	-1,631	-2,278	-2,801
(Inc)/Dec in WC	-309	1,852	4,590	-5,207	-302	1,077	741
CF from Operations	**4,844**	**12,514**	**11,207**	**1,394**	**6,851**	**9,616**	**10,206**
Others	-726	-716	0	0	0	0	0
CF from Operating incl EO	**4,119**	**11,798**	**11,207**	**1,394**	**6,851**	**9,616**	**10,206**
(Inc)/Dec in FA	-3,371	-3,508	-5,147	-5,486	-5,000	-5,000	-5,000
Free Cash Flow	**748**	**8,290**	**6,060**	**-4,092**	**1,851**	**4,616**	**5,206**
(Pur)/Sale of Investments	-12,397	-2,563	9,773	522	0	0	0
Others	2,374	167	189	844	446	538	600
CF from Investments	**-13,394**	**-5,904**	**4,815**	**-4,120**	**-4,554**	**-4,462**	**-4,400**
Issue of Shares	5,000	0	0	0	0	0	0
Inc/(Dec) in Debt	7,923	-756	-14,894	5,140	0	-3,000	-3,000
Interest Paid	-1,351	-4,874	-2,475	-2,090	-1,609	-1,504	-1,294
Dividend Paid	-601	-2	-352	-395	-588	-864	-1,062
Others	0	0	0	0	0	0	0
CF from Fin. Activity	**10,971**	**-5,632**	**-17,721**	**2,656**	**-2,197**	**-5,368**	**-5,356**
Inc/Dec of Cash	**1,696**	**262**	**-1,699**	**-70**	**99**	**-213**	**449**
Opening Balance	420	2,116	2,378	678	608	708	494
Closing Balance	**2,116**	**2,378**	**678**	**608**	**708**	**494**	**944**

THEMATIC/STRATEGY RESEARCH GALLERY









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