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Oil & Gas

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CGDs: Volume sustenance is key

After a turbulent FY22-24, gas markets are now normalizing and we expect Asian spot LNG to average US$8.5/MMBtu in FY25E-30E. Due to this, higher PLF for power and better demand outlook for other sectors, we expect FY24-30E gas consumption CAGR of 8% vs. 3% in the last 10 years. CGDs would be at the forefront of India's gas story and the industry has become more mature to tackle challenges. GGas' valuations increased by a third since we placed our SELL stance under review. Despite this, we reinstated coverage with BUY baking in higher volume and margin expectations. In the case of MGL, we increased TP by 30% due to improved volume growth trajectory but remain SELLers on valuation concerns. We turn SELLers on IGL after nearly two years considering NCT slowdown and margin pressure. We value IGL, MGL and GGas at 17x, 11x and 25x 1-yr fwd P/E respectively.

LNG to play a bigger role in India's NG story while OMCs for CGDs

After growing at 5% CAGR in 2004-2014, India's NG consumption took a back seat and clocked a CAGR of 3% in FY14-24. However, we expect an 8% CAGR in FY24-30E. Domestic production would outpace LNG until FY26E but LNG dependency would reach 65% in FY30E vs 48% in FY24. This would increase overall gas costs but won't derail growth trajectory amid increasing consumer affordability with rising GDP per capita. CGDs would have second-highest growth after Power and be the biggest gas consumer outpacing Fertilizer by end of this decade. OMCs and GAIL are better-placed to capture higher value from the CGD business due to their infrastructure and project management capabilities.

Beyond the 'Black Swan' event in the global gas market

CY22 turned out to be the most turbulent year in the history of the gas market and it entered an unstable equilibrium in CY23, remaining highly sensitive to any movements on either supply or demand. Global gas demand is expected to return to moderate growth in CY24E while Europe continues to import additional annual LNG of 60Bcm (vs. 2021). This would keep the market tight as only 61Bcm of new LNG gasification capacity is expected to come online in CY22-24E. 91Bcm of LNG gasification capacity is expected to be commissioned in CY25E-26E, which would bring Asian spot LNG prices below US$9/MMBtu in FY27E. LNG would regain its status of cheaper fuel vs. propane. This is due to higher propane prices led by China's petchem recovery.

Both government and lower penetration are bonanza for gas and EVs

The Indian government has been promoting oil, gas and renewables to meet rapidly increasing energy demand in the country. Gas and electricity have been becoming popular for transportation due to cost benefits, improving infrastructure and introduction of vehicles across different categories. While the total cost of ownership of ICE vs CNG/EV largely depends on utilization, lower penetration provides huge opportunities for both to grow.

Prefer GGas due to volume scalability

We turned BUYers on GGas on near-term robust outlook and improved long-term prospects. GGas would report double-digit volume growth in the next 3 years while IGL/MGL will see single-digit growth. Margins should improve for GGas given decline in spot LNG and reversion to historical levels for the other two. This would lead to EPS CAGR of 26% in FY24E-27E. Downgraded IGL as a slowdown in National Capital Territory (NCT) and pressure on margins would keep earnings suppressed. This won't be offset by expansion in new GAs. Remained SELLers on MGL but increased TP by 30% due to better volume and margin prospects; about 10% of MGL's overall valuation is because of Unison. In our coverage, we prefer ONGC>GGas. Remain SELLers on GAIL>IGL>MGL>PLNG>RIL.

Key Recommendations

IGL IN	**SELL**
TP: ₹400	Downside: (15%)
MAHGL IN	**SELL**
TP: ₹1,250	Downside: (13%)
GUJGA IN	**BUY**
TP: ₹650	Upside: 19%

We prefer GGas>IGL>MGL

Particular	IGL	MGL	GGas
Volume trajectory	Relatively weak	Relatively Strong	Strong
Margin safety	Relatively weak	Relatively Strong	Strong
Earning trajectory	Relatively Strong	Relatively weak	Strong
EV regulations	Relatively weak	Relatively Strong	Strong
Medium term expansion	Relatively Strong	Relatively weak	Strong
Valuation	Strong	Relatively Strong	Relatively weak

Source: Company, Ambit Capital research
Note: ● - Strong; ◕ - Relatively Strong; ◔ - Relatively weak

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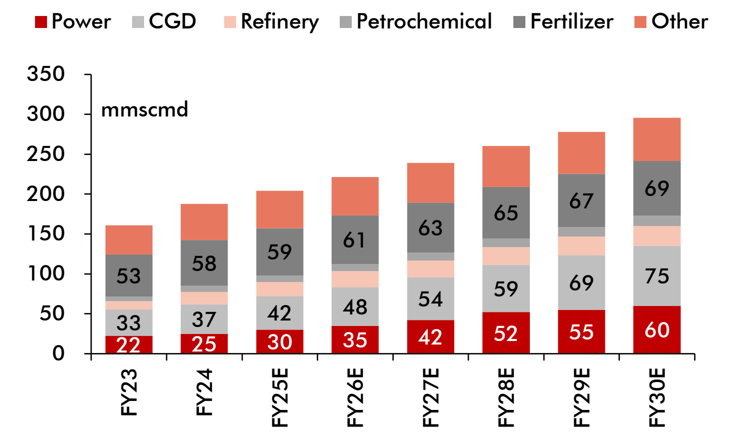
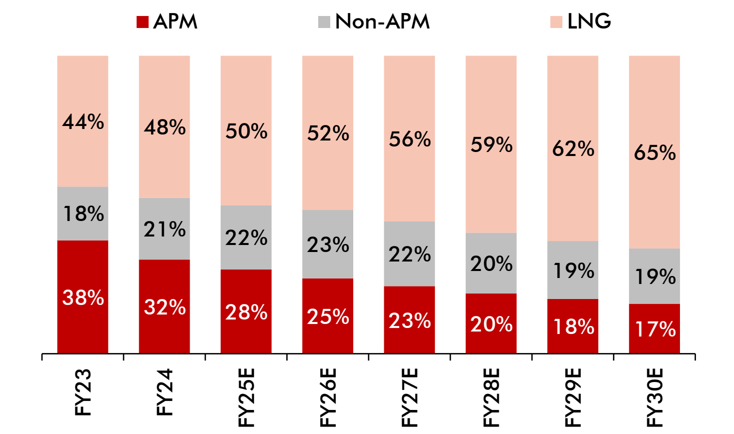
Exhibit 1: We expect 8% CAGR in NG consumption in FY24-30E vs. 3% in FY14-24; CAGR of 16%/13% for Power/CGDs



Source: PPAC, Ambit Capital research

Exhibit 2: India's gas sourcing mix; about 65% of demand would be met through international gas by FY30E



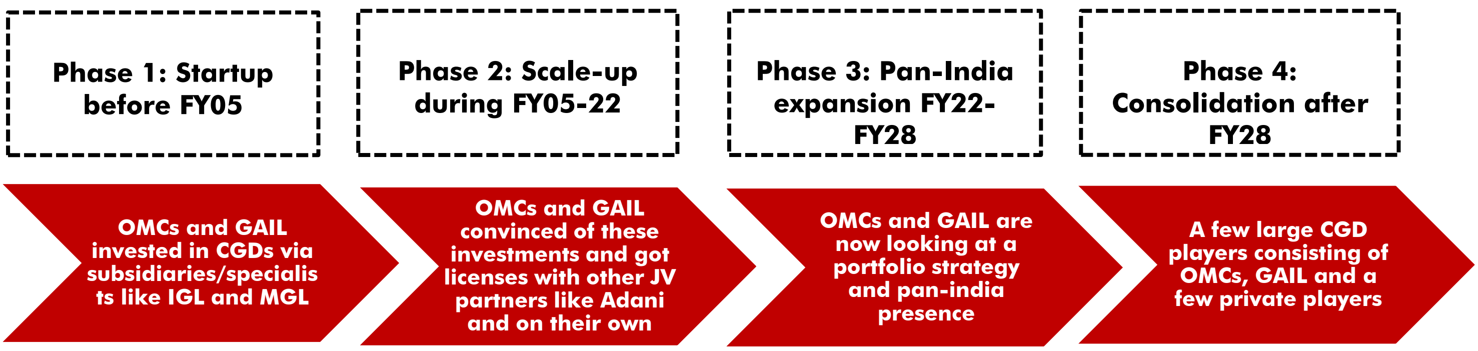
Source: PPAC, Ambit Capital research

Exhibit 3: Weighted average cost of gas for the country is expected to be about US$10.2/MMBtu in FY25E-30E vs. US$8.1/US$11.4 per MMBtu in FY17-24/FY23-24

Particular	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Volume (mmscmd)														
APM	67	71	73	70	65	62	61	59	58	56	54	53	51	49
Non-APM/HPHT	21	18	15	17	11	28	29	39	44	51	52	53	54	55
Long-Term LNG	65	73	76	76	76	76	71	76	76	76	88	88	88	92
Spot LNG	0	0	3	13	15	9	0	14	27	39	45	66	85	99
Total	**153**	**162**	**167**	**176**	**167**	**175**	**161**	**188**	**204**	**222**	**239**	**260**	**278**	**296**
Prices (US$/MMBtu)														
APM	3.1	3.0	3.7	3.9	2.3	2.7	8.2	7.2	7.2	7.5	7.8	7.8	7.8	7.8
Non-APM/HPHT	6.7	6.7	8.1	9.9	5.4	5.4	12.4	12.3	10.8	10.0	8.9	8.9	8.9	8.9
Long-Term LNG	8.7	9.8	11.3	10.2	8.2	12.6	14.5	13.0	13.0	12.6	12.0	11.3	11.3	11.3
Spot LNG	9.7	10.5	11.6	7.2	8.0	25.6	33.6	14.8	12.0	11.7	11.1	10.5	10.5	10.5
Weighted Avg.	**6.0**	**6.5**	**7.7**	**7.4**	**5.7**	**8.6**	**11.8**	**11.1**	**10.7**	**10.5**	**10.2**	**9.9**	**9.9**	**10.0**

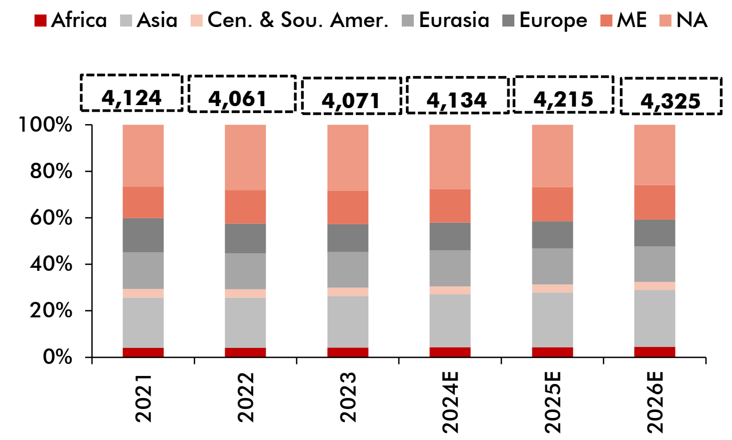
Source: PPAC, Bloomberg, Ambit Capital research; Note: Mar-25 onwards our estimates

Exhibit 4: OMCs and GAIL have a larger game in play in the CGD industry while specialists continue to grow marginally in their existing areas



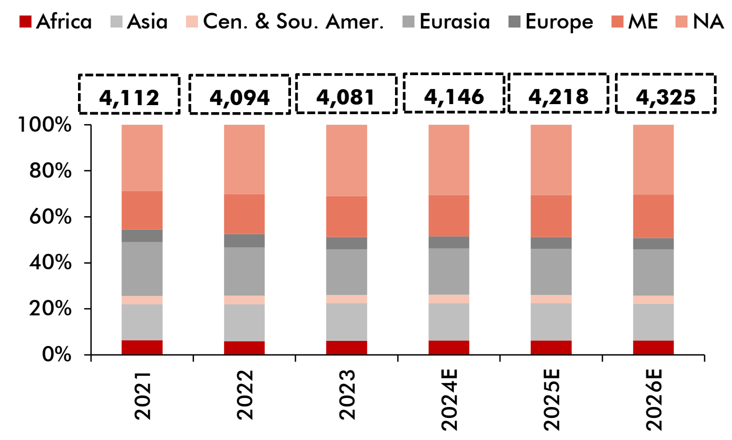
Source: Ambit Capital research

Exhibit 5: Global outlook for natural gas consumption; return to moderate growth from 2024 and driven by ME and NA



Source: IEA, Ambit Capital research; Note: Volumes are in Bcm

Exhibit 6: Global outlook for natural gas production; ME and NA would be major incremental producers



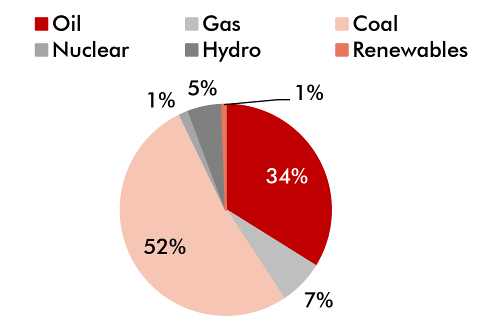
Source: IEA, Ambit Capital research; Note: Volumes are in Bcm

Exhibit 7: We expect Asian spot LNG to be below US$10/MMBtu in FY25E-27E; largely similar to historical levels

Particular (MMBtu)	U.S. gas export cost				Brent (US$/bbl)	JKM/Brent	JKM
	U.S. HHUB	Feed gas losses	Transport to Asia	Marginal supply cost to Asia			
FY07-09	7.2	1.1	5.0	13.3	76.7	12%	9.2
FY10-12	3.9	0.6	5.0	9.5	90.3	13%	11.8
FY13-15	3.7	0.5	5.0	9.2	101.1	17%	17.2
FY16-18	2.7	0.4	5.0	8.1	51.3	16%	8.2
FY19-21	2.6	0.4	5.0	8.0	58.7	11%	6.4
FY22-24	4.2	0.6	5.0	9.8	86.2	26%	22.1
FY18	3.0	0.5	5.0	8.5	57.6	14%	8.0
FY19	3.1	0.5	5.0	8.6	70.2	13%	9.1
FY20	2.3	0.3	5.0	7.6	61.0	8%	4.7
FY21	2.4	0.4	5.0	7.8	44.9	12%	5.5
FY22	4.1	0.6	5.0	9.7	80.0	29%	23.1
FY23	5.9	0.9	5.0	11.8	95.6	33%	31.1
FY24	2.5	0.4	5.0	7.9	83.0	15%	12.2
FY25E	2.5	0.4	5.0	7.8	85.0	12%	9.5
FY26E	3.0	0.4	5.0	8.4	80.0	12%	9.2
FY27E	3.0	0.4	5.0	8.4	75.0	12%	8.6

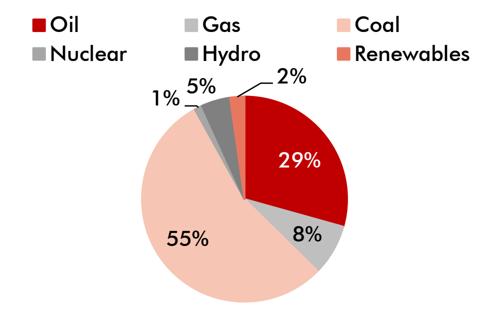
Source: Bloomberg, Ambit Capital research

Exhibit 8: Primary energy consumption by fuel type (14 EJ in 2002); share of oil & gas has been decreasing



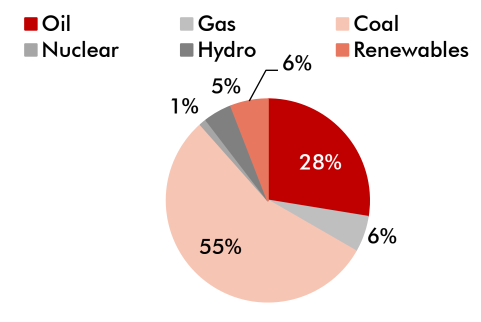
Source: Statistical Review of World Energy 2023, Ambit Capital research; Note: Data is for India

Exhibit 9: Primary energy consumption by fuel type (25 EJ in 2012); but not the absolute consumption



Source: Statistical Review of World Energy 2023, Ambit Capital research; Note: Data is for India

Exhibit 10: Primary energy consumption by fuel type (36 EJ in 2022); we expect the trend to continue



Source: Statistical Review of World Energy 2023, Ambit Capital research; Note: Data is for India

Exhibit 11: Total cost of ownership of a petrol and EV passenger vehicle in Delhi; benefits increase with utilization

Particular	Private Vehicle (100 km/d)		Commercial Vehicle (250 km/d)	
	Petrol	EV	Petrol	EV
	Cost (₹/km)		Cost (₹/km)	
Cost of vehicle	2.1	4.2	0.9	1.7
Insurance	0.2	0.3	0.1	0.1
Battery cost	0.0	1.1	0.0	0.4
Fuel cost	6.3	2.6	6.3	2.6
Maintenance	1.0	0.3	0.4	0.1
Salvage value after 10 years	(0.7)	(1.5)	(0.3)	(0.6)
Total cost of ownership	**8.9**	**7.1**	**7.4**	**4.4**

Source: Bureau of Energy Efficiency (India), Ambit Capital research; Note: No subsidy from the government and purchase without any debt

Exhibit 12: Penetration based on fuel types across different vehicle categories in India; huge opportunities for both CNG and EVs to grow amid lower penetration

Particular	Trucks	Mini Trucks	Buses	3W	PV
CNG ONLY	2%	5%	6%	11%	0%
DIESEL	96%	85%	92%	37%	42%
ELECTRIC(BOV)	0%	0%	2%	26%	0%
PETROL	0%	3%	0%	3%	46%
PETROL/CNG	0%	1%	0%	15%	7%
PETROL/HYBRID	0%	0%	0%	0%	2%
PETROL/LPG	0%	0%	0%	7%	1%

Source: Vahan, Ambit Capital research; Note: We have considered data from FY15 to 9MFY24 to calculate penetration

Exhibit 13: Summary of infrastructure, operational, financial and valuation metrics

Parameters	Unit	IGL (SELL)	MGL (SELL)	GGas (BUY)
Infrastructure (FY23)				
GAs	nos	10	6	27
CNG stations	nos	791	312	810
CNG vehicles	mn	1.7	0.9	NA
PNG-D	mn	2.4	2.2	2.0
PNG - I&C	nos	9,021	4,563	18,800
Pipeline	kms	22,500	6,571	36,400
Volume				
9MFY24	mmscmd	8.3	3.6	9.2
Volume CAGR (FY18-24E)	%	8%	6%	7%
Volume CAGR (FY24E-27E)	%	7%	6%	12%
EBITDA margin				
9MFY24	₹/scm	8.1	14.7	5.1
Average (FY19-24E)	₹/scm	7.0	9.9	5.5
Average (FY25E-27E)	₹/scm	7.1	10.5	6.6
Valuation and return ratio (FY26E)				
RoCE (Pre-Tax)	%	17%	24%	22%
RoE	%	17%	19%	19%
Dividend cover	%	187%	134%	308%
P/E - Long Term	x	19	14	20
P/B - Long Term	x	4	3	4
P/E - Implied	x	17	11	25
P/B - Implied	x	3	2	4

Source: Company, Ambit Capital research

Exhibit 14: Summary of analysis of value drivers for CGDs; GGas is on the top followed by IGL>MGL

Particular	IGL	MGL	GGas	Comments
Volume trajectory	Weak	Medium	Strong	GGas' volumes to recover sharply due to a pick-up in industrial demand and expansion of the CNG portfolio. IGL to register high single-digit volume CAGR and better outlook vs. past for MGL; hence higher rating vs. IGL.
Margin safety	Weak	Medium	Strong	GGas is more secure due to attractiveness of LNG vs. LPG and lower exposure to APM gas. We prefer MGL over IGL due to higher pricing power to withstand high gas costs.
Earning trajectory	Medium	Weak	Strong	Both volumes and margins are supportive for GGas while lower margins vs FY24E remains a challenge for MGL and IGL despite volume growth.
EV regulations	Weak	Medium	Strong	We don't expect any more unfavourable regulations for IGL in NCT while there are chances for MGL. However, enforcement is going to be stricter in NCT. GGas is less prone due to more exposure to industrial volumes which may see favourable government support due to pollution concerns.
Medium term expansion	Medium	Weak	Strong	Due to proximity of GAs, expansion is easier for GGas. IGL over MGL due to higher number of GAs.
Valuation	Strong	Medium	Weak	IGL is the only CGD that is trading at a discount vs. historical average. MGL is trading at near historical average while GGas at about 22% premium.

Source: Company, Ambit Capital research; Note: Strong – 3, Medium—2 and Weak – 1

Exhibit 15: We prefer ONGC>GGas; SELLers on the remaining (GAIL>IGL>MGL>PLNG>RIL)

Particulars	Rating	CMP/TP (₹/share)	TSR (%)	Thesis
Gas Utilities				
GAIL	SELL	209/165	-17%	Improved performance in the utility business would be earnings accretive. However, lower profitability from non-utility would continue to cap overall earnings. Apart from this, high capex would put pressure on FCF and dent return ratios.
PLNG	SELL	311/205	-31%	PLNG's dividend paying ability is at risk due to intense capex plan for multiple projects that have uncertain returns. This would lead to borrowings in FY27-28E for funding capex as well as dividend payments.
CGDs				
IGL	SELL	469/400	-13%	New GAs should drive growth in both CNG and PNG volumes. However, slowdown in NCT and pressure on margins would keep earnings suppressed.
MGL	SELL	1444/1250	-11%	The company has started focusing on volumes and hence we expect higher volume CAGR. However, lack of attractive GAs and reversion of margins to historical average remain challenges.
GGas	BUY	547/650	20%	GGas is India's largest CGD retailing gas company. The company suffered the most because of the Russia-Ukraine War. However, we expect a revival now. Unlike the other two CGDs, GGas is expected to perform well on both volume and margins.
Upstream				
ONGC	BUY	283/310	14%	Near-term boost is due to KG-D5 production ramp-up while long-term growth would be driven by increasing focus on domestic operations after the Russia-Ukraine war. We expect 47.1 MMTOE FY27E production vs 42.8 MMTOE in FY23. Also, we are confident of strong oil and gas prices.
Reliance	SELL	2934/2238	-23%	RIL's revenue growth from consumer businesses is slowing despite increased support for consumer businesses from standalone operations. It is unable to achieve non-linear scalability/success with digital revenue streams for Jio and new commerce for retail. So we don't see the company pulling off any surprises with consumer IPO valuations.

Source: Company, Ambit Capital research; Note: TSR is Total Shareholders Return

New normal: Growth despite higher prices

India's natural gas consumption is expected to grow at a CAGR of 8% in FY24-30E due to diversifying supply and improving demand. However, natural gas share in the overall energy mix would be about 9% vs. 15% target of the government. Incremental domestic production would be a major factor till FY26E but LNG import dependency would reach 65% by FY30E vs. 48% currently. This would increase overall gas costs. But higher pricing won't derail growth trajectory due to increasing consumers' affordability with rising GDP per capita. Power/CGDs would be at the forefront of India's gas story – growing at a CAGR of 16%/13% in FY24-30E. Overall CGD volumes would reach 75mmscmd in FY30E vs. 37mmscmd in FY24 with almost same proportion (60:40) for CNG and PNG as in FY24. OMCs and GAIL are trying to build an integrated business model focusing on terminals, pipelines and CGD infrastructure and will play a major role in CGD industry growth and consolidation.

India's natural gas landscape: Better than past decade

Lacklustre growth in India's natural gas consumption during last 12 years…

In the last decade, India's natural gas consumption took a back seat due to lower domestic gas production and higher LNG prices. The consumption saw a sharp drop in FY13-14 vs. FY12 and then it grew at a CAGR of only 3% in FY14-24 - similar to petroleum products. The major reason for lower growth was supply-side factors as highlighted below:

- Huge drop in FY13-14 vs. FY12 due to fall in domestic gas production because of production issues at RIL's KG-D6.
- Consumption remained stable at about 143mmscmd in FY14-16 as no new supply came in.
- 5% CAGR in consumption in FY16-20 due to increase in LNG imports from 52mmscmd in FY16 to 89mmscmd in FY20.
- Covid-19 led demand destruction in FY21; however, supply constraints again in FY23 due to the Russia-Ukraine war which led to higher international gas prices and that impacted LNG imports (71mmscmd in FY23).

There was a shift in consumption patterns among the top three consumers. Fertilizer industry continues to be the major consumer but the CGD sector surpassed the power sector to become the second-largest consumer of natural gas in the country.

Exhibit 16: India's natural gas consumption remained largely stagnant during the last 12 years

Particular	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	CAGR (FY14-24)
Volumes (mmscmd)														
Power	62	44	31	29	30	32	33	33	30	30	28	22	25	-2%
CGD	15	16	16	15	15	20	24	25	30	25	33	33	37	9%
Refinery	12	11	11	13	14	15	18	19	21	22	15	11	16	4%
Petrochemical	5	7	7	8	10	11	11	9	10	8	8	5	7	1%
Fertilizer	38	40	43	42	44	42	40	41	44	49	50	53	58	3%
Other	34	30	26	22	18	19	19	20	19	20	35	36	45	6%
Total consumption	**177**	**157**	**143**	**141**	**144**	**153**	**162**	**167**	**176**	**167**	**175**	**161**	**188**	**3%**
as % of total														
Power	35%	28%	22%	21%	21%	21%	20%	20%	17%	18%	16%	14%	13%	
CGD	9%	10%	11%	11%	10%	13%	15%	15%	17%	15%	19%	20%	20%	
Refinery	7%	7%	8%	9%	10%	10%	11%	12%	12%	13%	8%	7%	8%	
Petrochemical	3%	4%	5%	6%	7%	7%	7%	6%	6%	5%	4%	3%	4%	
Fertilizer	22%	26%	30%	30%	31%	28%	25%	25%	25%	29%	28%	33%	31%	
Other	19%	19%	18%	16%	12%	13%	12%	12%	11%	12%	20%	23%	24%	
Total consumption	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	

Source: PPAC, Energy Statistics of India, Ambit Capital research; Note: Total consumption includes net production + LNG imports and doesn't equal to sectoral consumption which includes net production available for sale + LNG imports

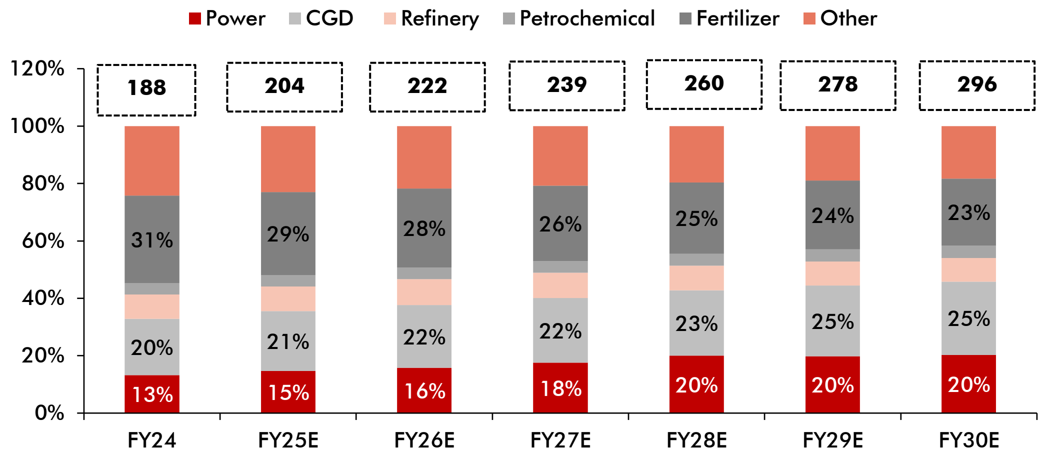
…diversified supply and improved infra would lead to higher growth…

We forecast 8% CAGR in consumption in FY24-30E due to both supply and demand factors as highlighted below.

Volumes (mmscmd) were 198, 187 and 190 in Oct, Nov and Dec of 2023. 195mmscmd in Jan-Mar'24.

- Domestic production CAGR of 4% in FY24-26E mainly due to RIL and ONGC. Also, increase in LNG imports with normalization in gas market from FY26E.
- Commencement/expansion of CGD operations in 308 geographical areas (GAs).
- Commissioning of multiple petrochemical plants and refining capacity expansion by 56MMTPA to 310MMTPA in the next five years.
- As per our utility team, Plant load factor (PLF) to increase for existing gas-based power plants.

Exhibit 17: We expect 8% CAGR in natural gas consumption in FY24-30E vs. 3% CAGR in FY14-24; CAGR of 16% for power and 13% for CGDs



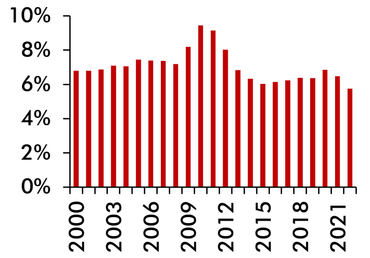
Source: PPAC, Ambit Capital research; Note: Volumes are in mmscmd

...but 15% share of natural gas in energy mix is a distant dream and contradictory with net zero targets

India has a target to increase share of natural gas in its total energy mix to 15% by 2030 vs. 6.7% in FY22. This requires gas consumption of about 500mmscmd in FY30E vs. 188mmscmd in FY24, a CAGR of 18%.

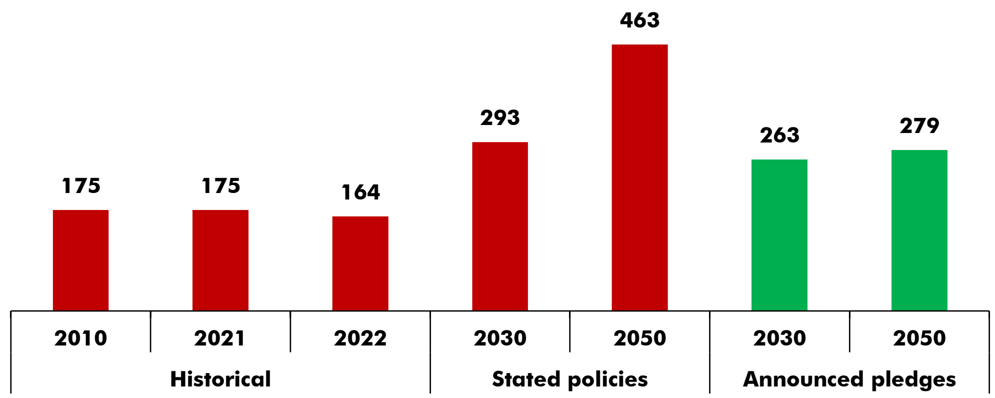
- As per IEA's World Energy Outlook 2023, India's NG demand would reach 293/263mmscmd under stated policies and announced pledge scenarios by FY30E, translating into a CAGR of 8%/6%.
- India's 15% share of NG in the energy mix target is against its net zero targets which requires maximum gas consumption of about 263mmscmd (IEA's announced pledges scenario) by FY30E.

Share of natural gas in India's energy mix remained around 7% in last 20 years



Source: Statistical Review of World Energy 2023, Ambit Capital research

Exhibit 18: NG share in India's energy mix to be 8.9% by 2030 vs 5.8% now as per IEA's SPS; we too expect 9% share and total energy consumption of 3,300mmscmd



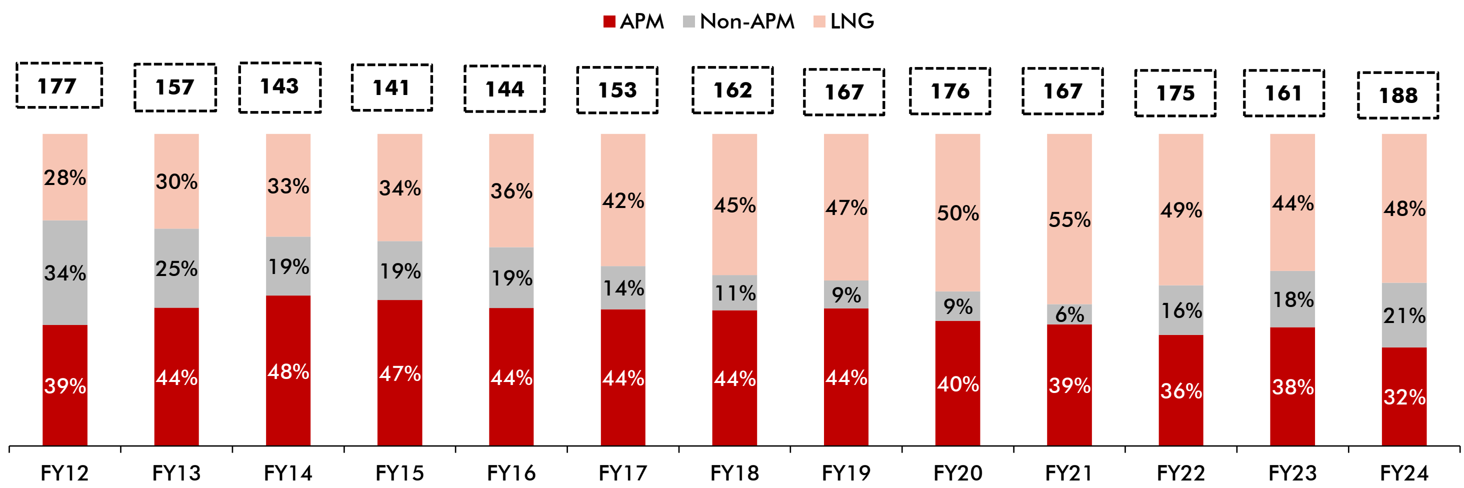
Source: IEA's World Energy Outlook 2023, Ambit Capital research; Note: Volumes are in mmscmd

India's gas import dependence & gas pricing to increase

LNG dependency has increased during the last 12 years...

India's natural gas production declined at a CAGR of 3% in FY14-21 due to operational issues at deep-water fields, natural decline at nomination fields and unsuccessful exploration. However, consumption grew at a CAGR of 2% and this increased LNG import dependence to 55% in FY21 vs. 33% in FY14. Domestic production increased sharply in FY22 due to start of gas production from RIL's KG-D6 basin (R cluster and Satellite cluster). This led to a decrease in LNG import dependence to 49% in FY22 and further reduced to 44% in FY23 due to higher international gas prices and Gazprom force majeure.

Exhibit 19: India's gas sourcing mix; about 48% of current demand is met through international gas

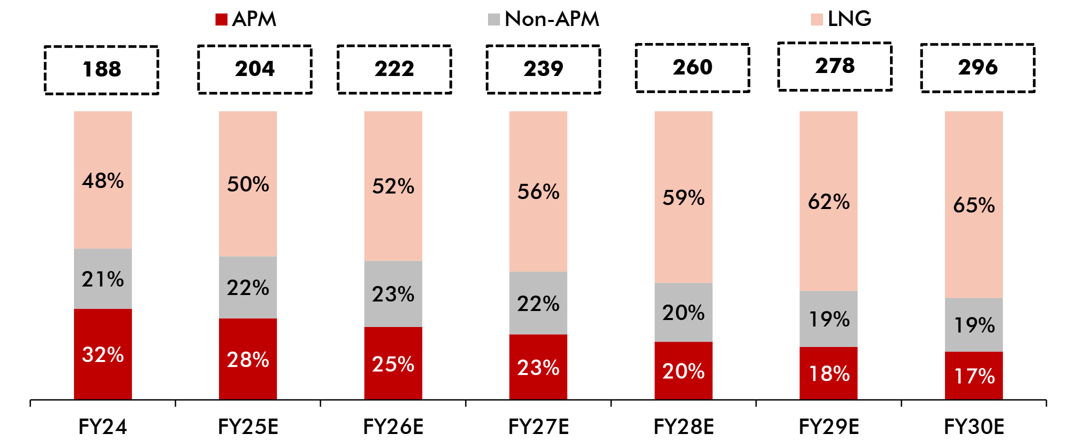


Source: PPAC, Energy Statistics of India, Ambit Capital research; Note: Volumes are in mmscmd

...domestic production to outpace LNG until FY26E but LNG dependence to reach about 65% by FY30E...

We expect domestic gas production to expand at 4% CAGR over FY24-FY26E to 107mmscmd vs. 98mmscmd due to RIL's MJ field in KG-D6 basin as well as start of gas production from ONGC's KG-D5 basin. This would be largely enough to meet growth in demand. However, domestic gas production would remain stagnant after that for the next 5 years (FY27E-31E) due to no new major discoveries and lack of exploration success. This would increase India's reliance on international gas and we expect LNG import volumes of around 191mmscmd in FY30E vs. 89/115mmscmd in FY24/FY26E.

Exhibit 20: India's gas sourcing mix; about 65% of demand would be met through international gas by FY30E



Source: PPAC, Ambit Capital research; Note: Volumes are in mscmd

...and this would be supported by LNG import capacity as well as LNG contracts

India's LNG import capacity would increase from current 46MMTPA to about 79MMTPA based on proposed terminals. This would be more than enough to meet its LNG import demand of 53MMTPA (191mmscmd) in FY30E. India's reliance on long-term natural gas contracts has helped it mostly shrug off impact of price volatility and ensured energy security when spot prices were high due to the Russia-Ukraine conflict. We highlight India's status w.r.t. long-term LNG contracts below:

- About 21MMTPA of existing long-term contracts from countries like Qatar, U.S., Russia and Australia. This excludes 2MMTPA of long-term contracts recently signed by IOCL with TotalEnergies and ADNOC and 1MMTPA signed by GAIL with Vitol and 0.5MMTPA with ADNOC.
- Petronet has renewed its 7.5MMTPA long-term LNG agreement with Qatar Energy, commencing from 2029 till 2048.
- GAIL is planning to secure an additional 6-7MMTPA of LNG by 2030 but does not intend to depend on one country for more than 1-2MMTPA to avoid risk of sudden disruption.

European and Chinese companies have signed multiple LNG contracts with U.S. and Qatar after the Russia-Ukraine war. However, Indian companies have refrained from locking in any new major long-term contracts on back of higher slope, which was in the range of 16-18% of Brent. We believe that Indian companies would start entering into smaller contracts now and bigger from FY26E after global gas market normalizes further.

Exhibit 21: Existing and proposed LNG terminals in India

Location	Promoters	Capacity as on 1st Apr-24		Capacity Utilization (11MFY24)	
		MMTPA	MMSCMD	%	Volumes (mmscmd)
					Existing
Dahej	Petronet LNG	17.5	63.0	95.1	59.9
Hazira	Shell Energy	5.2	18.7	31.5	5.9
Dabhol*	Konkan LNG	2.9	10.4	41.5	4.3
Kochi	Petronet LNG	5.0	18.0	20.6	3.7
Ennore	Indian oil LNG	5.0	18.0	17.8	3.2
Mundra	GSPC LNG	5.0	18.0	12.6	2.3
Dhamra	Adani Total	5.0	18.0	23.1	4.2
Total (A)		**45.6**	**164.2**	**50.9%**	**83.5**
Proposed					
Dahej expansion	Petronet LNG	5.0	18.0		
Gopalpur	Petronet LNG	5.0	18.0		
Dabhol*	Konkan LNG	2.1	7.6		
Jaigarh	H-Energy	6.0	21.6		
Jafrabad	Swan Energy	5.0	18.0		
Chhara	HPCL Shapoorji	5.0	18.0		
Ennore expansion	Indian oil LNG	5.0	18.0		
Total (B)		**33.1**	**119.2**		

*Source: PPAC, Ambit Capital research; Note: * To increase to 5.0MMTPA with breakwater. Only HP stream of capacity of 2.9MMTPA is commissioned, Jaigarh can be expanded to 8MMTPA while both Jafrabad and Chhara to 10MMTPA*

Overall gas prices to remain high due to increasing share of international gas...

Due to increasing proportion of international gas in overall consumption which usually has higher prices vs. APM/Non-APM, we expect blended gas costs to remain high.

Exhibit 22: Weighted average cost of gas for the country is expected to be about US$10.2/MMBtu in FY25E-30E vs. US$8.1/US$11.4 per MMBtu in FY17-24/FY23-24

Particular	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Volumes (mmscmd)														
APM	67	71	73	70	65	62	61	59	58	56	54	53	51	49
Non-APM/HPHT	21	18	15	17	11	28	29	39	44	51	52	53	54	55
Long-Term LNG	65	73	76	76	76	76	71	76	76	76	88	88	88	92
Spot LNG	0	0	3	13	15	9	0	14	27	39	45	66	85	99
Total	**153**	**162**	**167**	**176**	**167**	**175**	**161**	**188**	**204**	**222**	**239**	**260**	**278**	**296**
Prices (US$/MMBTU)														
APM	3.1	3.0	3.7	3.9	2.3	2.7	8.2	7.2	7.2	7.5	7.8	7.8	7.8	7.8
Non-APM/HPHT	6.7	6.7	8.1	9.9	5.4	5.4	12.4	12.3	10.8	10.0	8.9	8.9	8.9	8.9
Long-Term LNG	8.7	9.8	11.3	10.2	8.2	12.6	14.5	13.0	13.0	12.6	12.0	11.3	11.3	11.3
Spot LNG	9.7	10.5	11.6	7.2	8.0	25.6	33.6	14.8	12.0	11.7	11.1	10.5	10.5	10.5
Weighted Average	**6.0**	**6.5**	**7.7**	**7.4**	**5.7**	**8.6**	**11.8**	**11.1**	**10.7**	**10.5**	**10.2**	**9.9**	**9.9**	**10.0**

Source: PPAC, Bloomberg, Ambit Capital research; Note: Mar-25 onwards our estimates, we have considered slope of 12% of Brent for long-term LNG plus US$2.5/MMBtu for other charges (transportation and regasification) and Spot LNG prices based on our estimates plus US$2.5/MMBtu. Increase in long-term LNG volumes based on recently entered contracts. Also, we have ignored domestic transportation charges for all sources and considered domestic gas on net calorific value

...and only benefit of Kirit Parikh Committee (KPC) to CGDs was introduction of ceiling price for APM gas

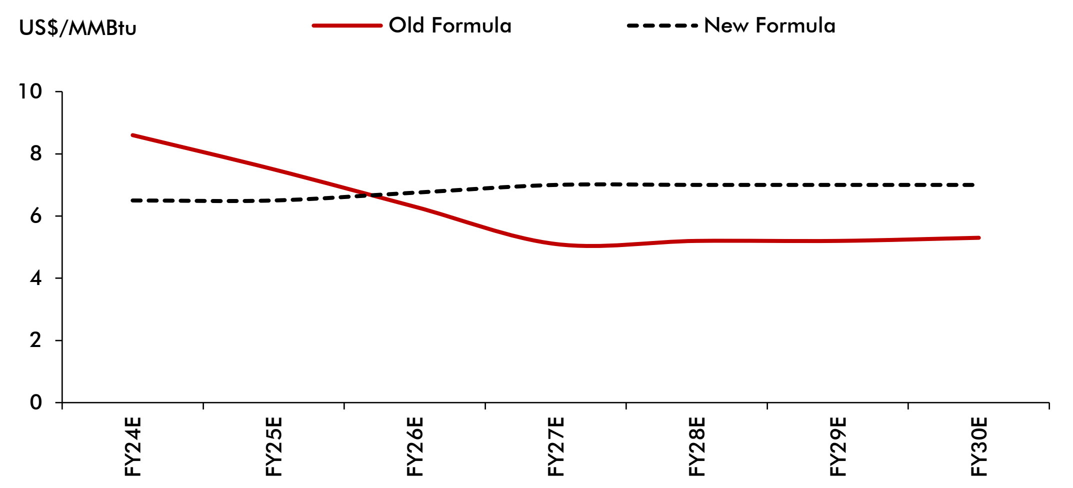
Due to pressure on both volumes and margins of CGDs as well as operational issues for other sectors like fertilizer, the Kirit Parikh Committee (KPC) was formed in Sep-22 to review gas pricing formula for domestically produced gas with the aim of ensuring a fair price even as global prices increased significantly. Major changes after KPC:

- APM gas will be priced at 10% of monthly average of the Indian crude basket. Besides, this price would also have a floor of US$4.0/MMBtu and a ceiling of US$6.5/MMBtu. Also, ceiling price to go up by US$0.25/MMBtu annually after two years (FY25E onwards).
- Gas produced from new wells or well interventions in nomination fields of ONGC and OIL would be allowed a premium of 20% over APM price.

Under the old mechanism, APM gas price was revised twice a year (1st April and 1st October) and based on volume-weighted average prices (trailing four quarter data with one quarter lag) of four global gas benchmarks – the US-based Henry Hub, Canada-based Alberta gas, the UK-based NBP and Russian gas.

- APM prices expected to average US$6.5/MMBtu in FY24E-25E as per new regime vs. US$8.1/MMBtu as per old regime. However, prices are expected to be higher from FY26E as per new guidelines (US$7.0/MMBtu in FY26E-30E vs. US$5.4/MMBtu as per old formula).
- Considering these, only benefit of KPC was introduction of a ceiling which would provide safety to CGDs during extreme events like FY22-23.

Exhibit 23: KPC just provided short-term support to customers including CGDs



Source: PPAC, Bloomberg, Ambit Capital research; Note: Prices are on gross calorific value

CGDs to remain at forefront of India's natural gas story

Massive CGD authorizations happened during the last 4 bidding rounds…

Only 33 geographical areas (GAs) were offered before the formation of PNGRB while it allocated 64 GAs in the first 8 CGD bidding rounds. Major CGD authorization happened in the 9th to 11th bidding rounds as highlighted below:

- **9th and 10th bidding rounds:** PNGRB has granted authorization for 86/50 GAs in 9th/10th bidding rounds. After these rounds, coverage of CGD infrastructure expanded to 70% of country's population and 53% of its area.
- **11th and 11A bidding rounds:** These two rounds expanded coverage of CGD to about 99% of population and 88% of geographical area of the country.

Exhibit 24: Coverage of population of India and its area

CGD Authorizations	Geographical Areas (GAs)		% Population India		% Area of India	
	Standalone	Cumulative	Standalone	Cumulative	Standalone	Cumulative
Pre-PNGRB	33	33	9.3	9.3	3.0	3.0
Round 1 (Oct-08)	6	39	0.3	9.6	0.0	3.0
Round 2 (Feb-09)	3	42	0.2	9.8	0.0	3.0
Round 3 (Jul-10)	8	50	0.8	10.6	1.2	4.2
Round 4 (Sep-13)	9	59	2.3	12.9	1.3	5.5
Round 5 (Jan-15)	8	67	2.0	14.9	1.8	7.3
Round 6 (Oct-15)	17	84	2.1	17.0	2.0	9.4
Round 7 (Jun-16)	1	85	0.4	17.4	0.5	9.8
Round 8 (Nov-16)	6	91	0.9	18.3	0.6	10.4
Sec. 42 (Mar-18)	6	97	1.6	19.9	0.6	11.0
Round 9 (Apr-18)	86	183	26.4	46.2	23.8	34.8
Round 10 (Nov-18)	50	233	24.2	70.5	17.9	52.7
Round 11 (Sep-21)	61	294	26.0	96.5	33.0	85.7
Round 11A (Jan-22)	6	300	2.0	98.5	2.0	87.7

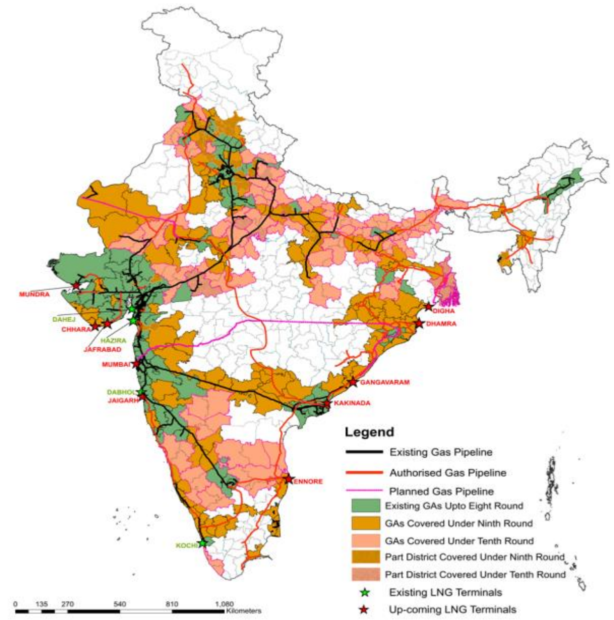
Source: PNGRB, Ambit Capital research

...and 12th and 12A rounds to cover 100% of India w.r.t. area and population

PNGRB offered 8 GAs under 12th and 12A bidding rounds. The round constituted 8 GAs across 6 Northeast states and two Union Territories of Jammu & Kashmir and Ladakh. After completion of these rounds, nearly the entire country, except Andaman and Nicobar and Lakshadweep, will be covered under the gas distribution network. Winners for GAs were as follows:

- Arunachal Pradesh: BPCL and Oil India
- Meghalaya: Haryana City Gas
- Manipur: Tripura Natural Gas Company Limited
- Mizoram: Tripura Natural Gas Company Limited
- Sikkim: HPCL
- Nagaland: HPCL and Oil India
- Jammu and Kashmir: BPCL
- Ladakh: BPCL

Exhibit 25: CGDs covered 11%/53% of India's geographical area after 8th/10th bidding rounds...



Source: PNGRB, Ambit Capital research

Exhibit 26: ...and this increased to 88% after the 11A bidding round

Source: PNGRB, Ambit Capital research

Minimum work program targets are onerous...

There are ambitious, even extravagant minimum work commitments to provide domestic piped gas connections and set up CNG stations made by CGD companies to PNGRB for areas won in the 9, 10 and 11 bidding rounds. In our view, this is going to be more challenging for PNG then CNG.

- 1,730 CNG stations at the end of Mar-19, which are expected to increase to 6,949 in Mar-24, implying a CAGR of 32%. Numbers should reach about 19,070 stations by FY30E (CAGR of 18%) to meet targets, which is plausible. OMCs have added more than 22,000 retail outlets in just 5 years (FY19-23).
- In the case of PNG, connections grew at a CAGR of 21% in FY19-24E and expected to reach 13 million. Numbers should increase to about 120 million (CAGR of 44%) to meet targets, which is highly unlikely. In its 2024 election manifesto, BJP, India's ruling political party, has committed to expanding piped natural gas connections to all major cities and towns.

Despite extension granted due to Covid-19 (mostly of 6-12 months) by PNGRB to meet targets, we expect delay in execution of projects due to quantum as well as regulatory hurdles like acquisition of land, environmental clearance and others, especially by smaller CGDs. We believe PNGRB have to both rationalise targets and start penalising entities for faster execution.

Exhibit 27: CGDs needs to do heavy lifting to meet minimum work obligations

Particulars	9th Round	10th Round	11th Round	11Ath Round	Total
GAs offered	86	50	61	6	203
Bid received	406	225	439	28	1,098
Entities	38	25	26	10	-
Coverage					
State/Union Territories	22	14	20	5	27
(a.) Districts	174 districts (156 full & 18 part)	124 districts (112 full & 12 part)	215 districts (212 full & 3 part)	27	540 districts
(b.) Area (%)	23.8	17.9	33.0	2.0	76.7
(c.) Population (%)	26.4	24.2	26.0	2.0	78.6
Minimum work program (MWP)					
PNG-D (Millions)	22.1	20.2	57.4	13.1	112.8
CNG Stations	4,603	3,578	8,721	819	17,721
Steel Pipeline (Inch-KM)	116,000	58,000	123,000	11,000	308,000

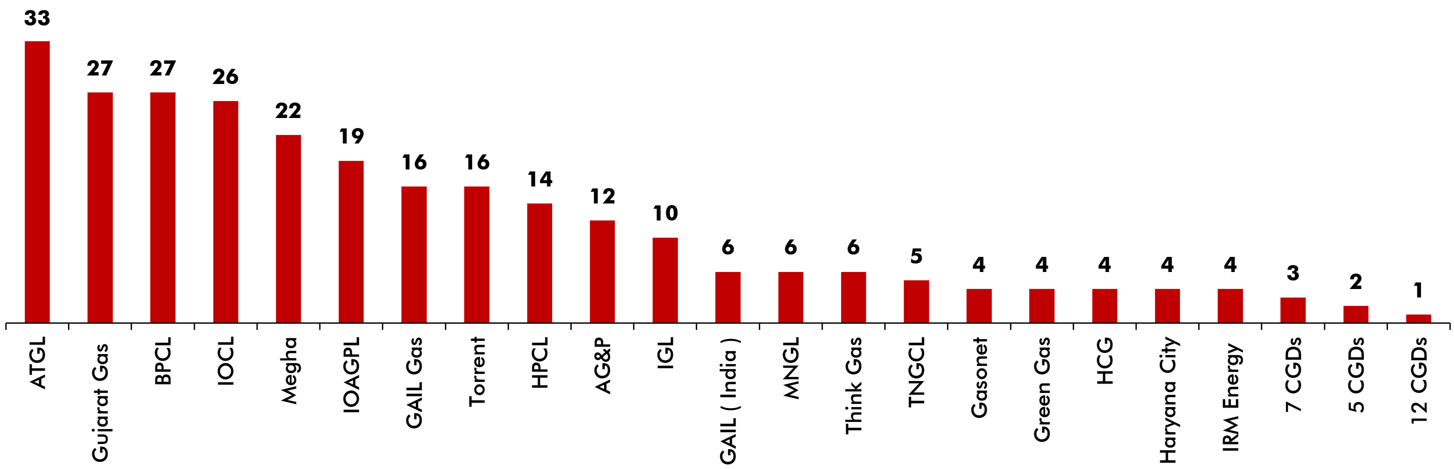
Source: PNGRB, Ambit Capital research

...and this may lead to consolidation in the industry

In China, the top-4 gas companies cater to about 60% of the total gas market. Big companies have acquired smaller rivals which had been infrastructure and sourcing handicaps. This has already started in India and may speed up in 2-3 years after organic growth subsides, challenges in meeting MWP targets and end of PNGRB's M&A moratorium (5 years after authorization).

- Torrent gas acquired Mahesh Gas, Sanwariya Gas and Siti Energy to expand its CGD network. Also, Indraprastha Gas acquired 50% equity in CUGL and MNGL in 2014. MGL acquired Unison Enviro while I Squared is planning to merge Think Gas and AG&P.
- We believe OMCs and GAIL may attempt to grow inorganically once new opportunities dry up. Also, they may sell some of their existing GAs to private players due to better synergies for them.
- There have been concerns in recent times related to marketing and infrastructure exclusivity for incumbent CGDs. PNGRB is now taking careful steps to draft regulations on how to end exclusivity and subsequent issues of tariff and sharing of existing infrastructure. However, we don't see much risk in next 3-5 years because of this.

Exhibit 28: CGDs along with number of authorized GAs (308) after the 12th bidding round at the standalone level; 24 smaller players with operations in 1-3 GAs

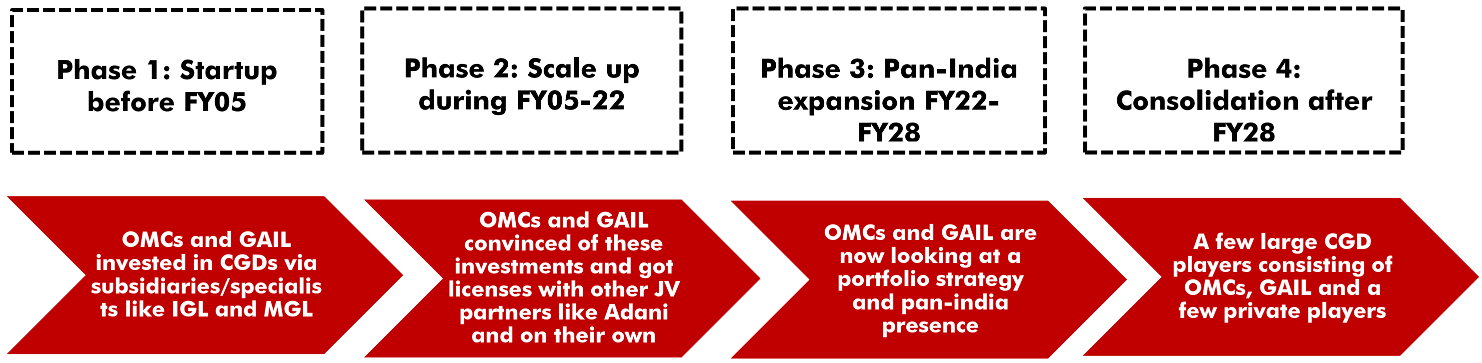


Source: PNGRB, Ambit Capital research; Note: Each of 7, 5 and 12 separate CGD entities have rights for 3, 2 and 1 geographical areas; however, many of them are JVs and associates of bigger companies likes GAIL, BPCL, IOCL and others

Integrated business model is emerging...

In the early 1990s, OMCs and GAIL launched pilot projects in Delhi and Mumbai, leading to the start of commercial operation of city gas projects. Later, CGD projects in these cities were rolled out through JVCs, namely Indraprastha Gas Limited (IGL) and Mahanagar Gas Limited (MGL). The impact of these ventures was remarkable from the onset and has transformed the lives of people of these two cities. Based on the success of IGL and MGL, OMCs and GAIL have set up more CGD JVCs like Bhagyanagar Gas Limited, Maharashtra Natural Gas Limited, Central UP Gas Limited, Indian Oil-Adani Gas Private Limited and others. At the standalone level (including GAIL Gas), they acquired the rights for 74 GAs (35% of total) in the last 4 bidding rounds. We believe they are now planning to capture a larger part of the CGD value chain.

Exhibit 29: OMCs and GAIL have a larger game in play in the CGD industry while specialists continue to grow marginally in their existing areas



Source: Ambit Capital research

Apart from higher number of authorized GAs, ownership stake in LNG import terminals and natural gas transportation pipelines are other focus areas of OMCs and GAIL to build an entire CGD ecosystem.

- IOCL won 3 out of 9 GAs in Tamil Nadu in the 11th and 11A bidding rounds. We believe IOCL is trying to build a complete gas ecosystem in South India, especially in Tamil Nadu.
- In Andhra Pradesh and Telangana, HPCL along with its JV companies have authorization for 5 GAs out of 9 operational GAs. In the 11th round, HPCL won 1 GA (Dausa, Karauli, Sawai Madhopur and Tonk districts) in Rajasthan. All of these authorised geographical areas run parallel to or near its Mallavaram-Bhilwara pipeline.

Exhibit 30: IOCL is building integrated business model in Tamil Nadu

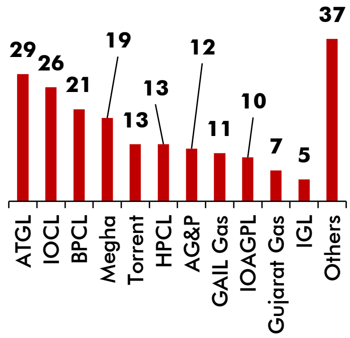
Source: Company, Ambit Capital research

...OMCs and GAIL to emerge as dominant players

After the 12th bidding round, GAs authorizations are 26, 27, 14 and 22 for IOCL, BPCL, HPCL and GAIL (including GAIL Gas); 29% of the total. This would be 49, 53, 25 and 67 after considering JVs and associates. While GAIL has authorization for 67 GAs, it's in partnership with OMCs in 28 GAs. OMCs and GAIL supremacy and ambitions for CGD network expansion are underscored as below:

- OMCs and GAIL along with their JVs and associates have authorization for 166 GAs, about 54% of total authorized GAs. About 60%/70% of CNG stations/PNG-D connections were on their infrastructure at end of Sep-23. The partnership is mainly due to complementary nature of assets. GAIL plays a major role in CGD industry as it dominates gas transmission pipeline network. However, it has to depend on OMCs for gas retailing.
- We believe that incumbent CGD players (MGL, IGL and GGas) will struggle to go beyond big markets like MMR, NCR and Gujarat. OMCs and GAIL are better placed due to their large-scale project management capabilities and already established marketing infrastructure.
- The margin on CNG and PNG is higher than auto-fuels (petrol and diesel) and LPG. Further, there is a taxation advantage as the government wants to promote natural gas as a cleaner fuel. We believe that OMCs want to capture more from gas value chain.
- As per PNGRB, investment of ₹700bn/₹500bn/₹800bn would be required for development of GAs awarded during 9/10/11th rounds. OMCs are expected to invest around ₹900bn over next 8 years, which is about 45% of total Capex committed. We expect OMCs to deliver on a large part of Capex's commitment as building gas infrastructure is one of their top priorities. Apart from already announced, no new refinery projects are expected at least for the next 5 years which leaves room for CGDs' infra expansion. We haven't considered 12th round which requires an investment of ₹410bn.

OMCs and GAIL including GAIL Gas won 71 GAs out of 203 GAs at Standalone level in 9-10-11 bidding rounds



Source: PNGRB, Ambit Capital research

Exhibit 31: OMCs and GAIL have superior infra and building new infra to participate in the entire value chain of natural gas

Company	Marketing infrastructure	Gas transmission pipeline capacity	Project management capabilities	Volumes trajectory	Gas sourcing	Thesis
IOCL	●	●	●	●	●	IOCL is best-placed for CGD expansion as it has highest number of retail outlets, large-scale project management capabilities and huge pipeline infrastructure. It is already sourcing LNG and has LNG terminal infrastructure. Along with its JV partners, it has authorization for 49 GAs, which will translate into significant volume growth. 2,111 ROs have CNG facilities as on 1st Apr-24.
BPCL	◕	◑	●	●	◕	BPCL has first-mover advantage due to its investment in IGL in 1998. We believe volumes will continue to grow as it has authorization for 53 GAs along with its JV. 2,031 ROs have CNG facilities as on 1st Apr-24.
HPCL	◕	◕	◕	◕	◕	Relative to the other two OMCs, HPCL has authorization for a fewer number of GAs (25) along with its JV, which will impact volume growth. However, HPCL has superior pipeline infrastructure vs. BPCL and is also constructing an LNG terminal at Chhara. 1,690 ROs have CNG facilities as on 1st Apr-24.
GAIL	◔	●	●	●	●	GAIL continues to be the flagship gas transmission company. However, weak marketing infrastructure relative to OMCs is a big negative factor.
IGL	◑	◔	◑	◑	◕	Volume growth will be driven by increasing penetration in new GAs. However, slowdown in NCT and APM deallocation remain a challenge.
MGL	◔	◔	◑	◑	●	The company has the highest pricing power among peers, which would allow it to manage gas costs. Volume growth would be better vs FY18-24E in the near to medium term due to increasing penetration and Unison's acquisition. However, long-term remains a challenge due to its fewer number of GAs.
GGas	◕	◔	◕	◕	◕	We believe volumes will grow due to normalization in gas prices, strict pollution norms and faster ramp-up in new GAs. After a massive drop in volumes in FY23, we expect gradual recovery until FY25E. Pickup in industrial volumes from FY26E with normalization in the global gas market.

Source: Company, Ambit Capital research; Note: ● - Strong; ◕- Relatively Strong; ◑- Average; ◔- Relatively weak

Expansion in geographical areas to increase CGDs demand…

CGD infrastructure grew significantly during the last 5 years due to thrust provided by the government to increase usage of cleaner fuel. This is despite multiple challenges like Covid-19, higher gas costs after the Russia-Ukraine war, deallocation of APM gas and other regulatory issues. We still believe CGDs will remain at the forefront of India's natural gas story due to significant investment drive over the coming years for development of new areas allocated in the last 4 bidding rounds. This would be supported by normalization of the gas market, attractiveness vs. alternative fuels and introduction of new vehicles by OEMs.

- We expect CNG stations to increase to 17,699 in FY30E vs. 6,949 in FY24E, meeting about 90% of MWP targets. Based on addition of 10,750 stations and average sales volume per retail outlet (2,500scmd vs. 3,250scmd), we estimate that gas demand from CNG would rise by 22mmscmd, a 12% CAGR over FY24E-30E.
- Per retail outlet sale (scm) was about 7.7k, 8.2k and 3.4k for IGL, MGL and GGas respectively in 3QFY24. This highlights the significant difference for metro vs. non-metro areas, and sale is only about 1.0-2.0k in some of semi-urban areas.

Exhibit 32: CNG volume CAGR of 14% in FY19-24E; we expect 12% CAGR for FY24E-30E; incumbents' dominance to decrease

Particular	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Overall														
Stations	1,233	1,349	1,730	2,207	3,101	4,433	5,665	6,949	8,593	10,417	12,214	14,220	16,096	17,699
Volumes/station (scmd)	7,357	6,648	6,820	5,643	3,202	3,433	3,455	3,251	3,051	2,851	2,651	2,451	2,500	2,500
Volumes (mmscmd)	9.1	9.0	11.8	12.5	9.9	15.2	19.6	22.6	26.2	29.7	32.4	34.8	40.2	44.2
Volumes (mmscmd)														
IGL	3.5	3.9	4.4	4.8	3.7	5.1	6.1	6.3	6.8	7.4	7.9	8.4	9.0	9.7
MGL	1.9	2.0	2.2	2.1	1.4	2.1	2.5	2.6	2.7	2.9	3.0	3.1	3.1	3.2
Gujarat Gas	1.2	1.3	1.4	1.5	1.3	2.0	2.4	2.7	3.0	3.3	3.6	4.0	4.4	4.8
Share in overall (%)	***72%***	***80%***	***68%***	***68%***	***65%***	***60%***	***56%***	***52%***	***48%***	***46%***	***45%***	***44%***	***41%***	***40%***

Source: PPAC, Company, Ambit Capital research; Note: Estimates from FY24E

- Our moderated assumptions compared to MWP targets set by PNGRB for domestic household connections suggest an increase in DPNG connections to about 56 million by FY30E vs. 13 million at the end of FY24E. This implies meeting about 50% of the target and increase in volumes by 16mmscmd over FY24E-30E.

Exhibit 33: PNG volumes CAGR of 13% in FY24E-30E but only 7% CAGR in FY22-30E

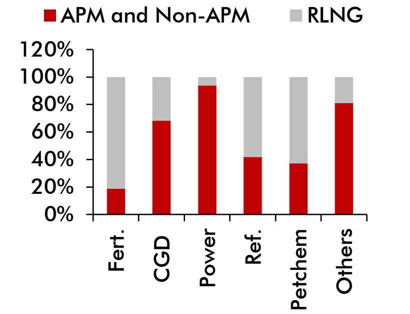
Particular	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Overall														
PNG volumes (mmscmd)	11.1	14.6	13.4	17.4	15.4	18.1	13.4	14.7	16.2	18.6	21.4	24.6	28.3	31.1
PNG - D (million)	3.6	4.2	5.0	6.1	7.8	9.3	11.0	13.0	19.0	26.0	33.0	42.0	49.0	56.4
PNG - C ('000)	22.0	25.9	28.0	30.6	32.3	34.9	37.8	43.0	47.3	52.1	57.3	63.0	69.3	76.2
PNG - I ('000)	6.7	7.5	8.8	10.3	11.8	13.2	16.6	19.2	21.1	23.2	25.5	28.1	30.9	34.0
Volumes (mmscmd)														
IGL	1.1	1.3	1.5	1.7	1.6	1.9	2.0	2.1	2.3	2.5	2.6	2.8	3.0	3.2
MGL	0.7	0.7	0.8	0.8	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.3	1.3	1.4
Gujarat Gas	4.3	4.9	5.1	7.9	8.1	8.7	5.9	6.5	7.3	8.1	9.3	10.7	11.4	12.3
Share in overall (%)	***55%***	***48%***	***55%***	***60%***	***68%***	***64%***	***67%***	***66%***	***66%***	***62%***	***61%***	***60%***	***56%***	***54%***

Source: PPAC, Company, Ambit Capital research; Note: Estimates from FY24E

...however, APM de-allocation to remain one of the biggest challenge for CGDs

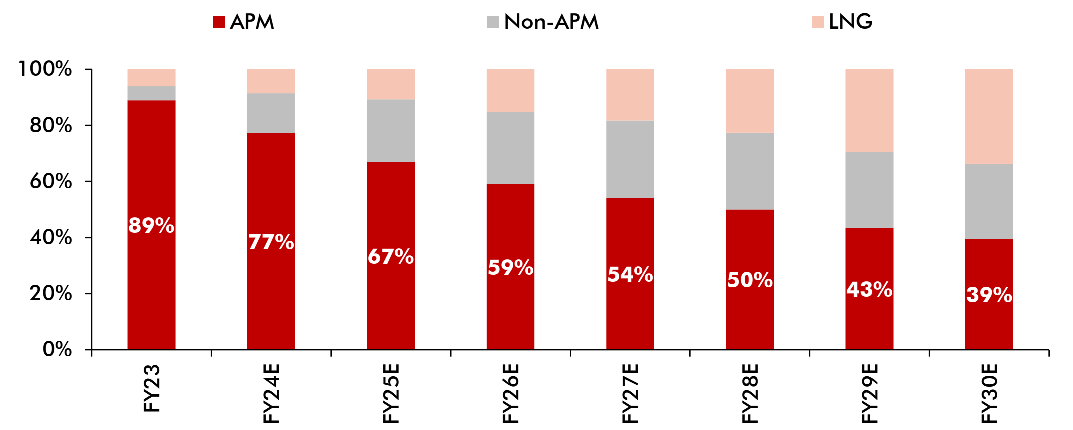
MoPNG used to allocate 110% of previous six months' average demand for CGDs priority segments (CNG and PNG-D). However, with sharp jump in gas demand after Covid-19 as well as declining APM production, APM gas allocation to CGDs have been consistently below 100% since FY22. To overcome this, the government prioritized Non-APM gas for CGDs since Jan-23. Given declining trend in APM gas production and expectation of 12% demand CAGR for priority segments over FY24E-30E, we expect APM share to decrease gradually. This would be negative but a decrease in international gas and HPHT prices as well as increasing consumer buying power and alternative fuel prices would allow CGDs to maintain margins largely at historical levels.

Share of domestic and international gas in a particular sector portfolio



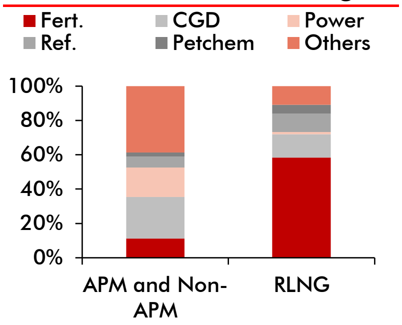
Source: PPAC, Ambit Capital research; Note:

Exhibit 34: APM to meet about 40% of CGDs' priority segment demand in FY30E vs. 89%/77% in FY23/FY24E



Source: PPAC, Bloomberg, Ambit Capital research

Sectoral consumption of domestic and international gas



Source: PPAC, Ambit Capital research; Note: Data for FY24

Global gas market past peak uncertainties

Europe imported 130Bcm additional LNG in 2022-23 vs. new LNG gasification capacity of 22/18Bcm in 2022/2023. This triggered fierce competition for supply, mainly between Europe and Asia, and 2022 became the most turbulent year in the history of gas industry. In 2023, the market entered an "unstable" equilibrium, remaining highly sensitive to any movements on either supply or demand. Global gas demand is expected to return to moderate growth in 2024 while Europe continues to import additional annual LNG of 60Bcm (vs. 2021). This along with addition of only 21Bcm of new LNG supply would keep the market tight; however, high inventories and improved coordination won't lead to extreme spikes and volatility. We expect normalization in 2025-26 once LNG capacity of 91Bcm comes online. Our estimate for Asian spot LNG is US$9.5/US$9.2/US$8.6 per MMBtu in FY25E/FY26E/FY27E. This is about 66%/25% lower vs. FY22-23/FY24 and similar to Pre-Covid levels.

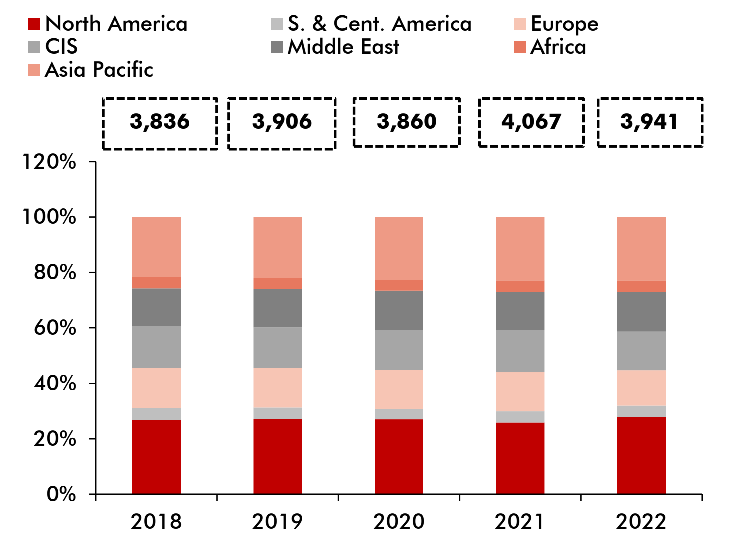
2022: Most turbulent year in the history of gas

Russia-Ukraine war has impacted global natural gas market growth trajectory...

During 2011-21, natural gas consumption worldwide expanded by close to 25% (CAGR of about 2%) and accounted for 40% of the growth in primary energy supply worldwide – more than any other fuel. The energy crisis triggered by the Russia-Ukraine conflict marked a turning point for global natural gas market.

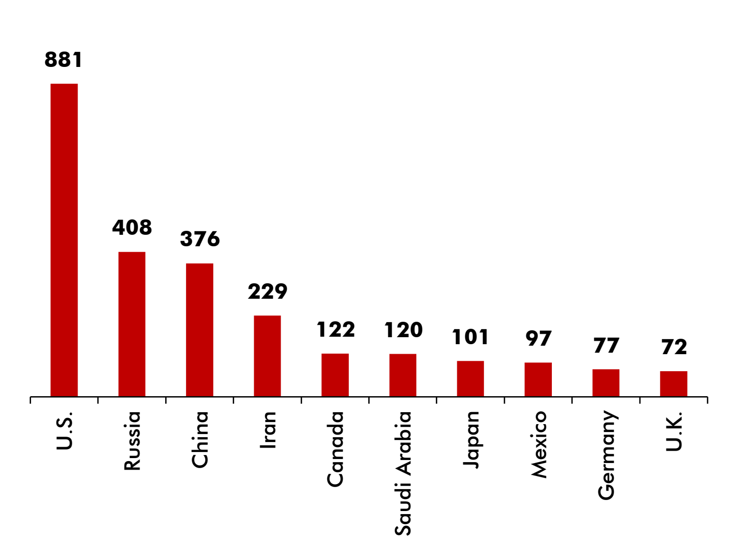
- Gas demand decreased by 3.1% in 2022 compared to 2021, with large declines in Europe and Russia partially offset by growth in North America and the Middle East.
- Europe's gas demand decreased by 13% YoY to 499Bcm in 2022 and 2% lower for Asia Pacific to 907Bcm. Russia too saw demand destruction of 67Bcm (14% down YoY) to 408Bcm in 2022. In U.S., demand increased by 5% to 881Bcm in 2022 mainly due to gas-fired power plants.

Exhibit 35: Global gas consumption; sharp decrease in 2022 mainly due to Europe and Russia



Source: Statistical Review of World Energy 2023, Ambit Capital research; Note: Volumes are in Bcm

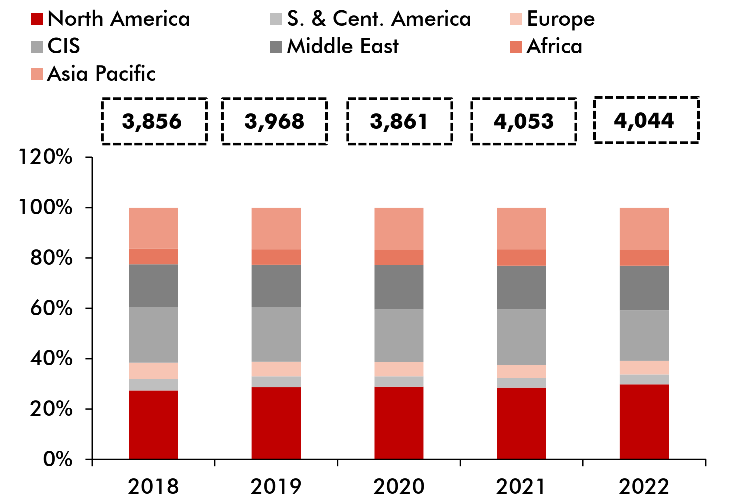
Exhibit 36: Top 10 global gas consumers in 2022; U.S. remains the powerhouse



Source: Statistical Review of World Energy 2023, Ambit Capital research; Note: Volumes are in Bcm

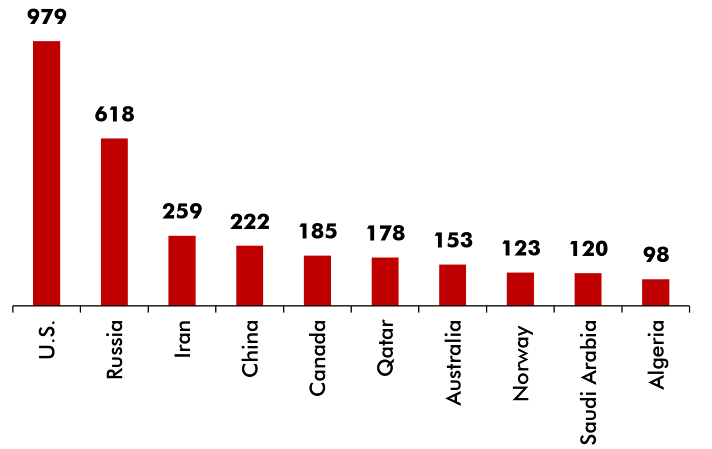
- Global gas production stayed flat in 2022 vs. 2021 with a marginal 10Bcm fall, which is a 0.2% decrease YoY. Looking back at 2022, curtailment of Gazprom's output in Russia was largely offset by supply growth in North America, which grew from 1,155Bcm to 1,204Bcm.
- In 2022, Russian production plummeted by 84Bcm (12% lower YoY) to 618Bcm while U.S. production grew from 944Bcm to 979Bcm, an increase of 4%.

Exhibit 37: Global gas production; marginal decrease in 2022



Source: Statistical Review of World Energy 2023, Ambit Capital research; Note: Volumes are in Bcm

Exhibit 38: Top 10 global gas producers in 2022; Russia remains at 2nd place despite massive reduction

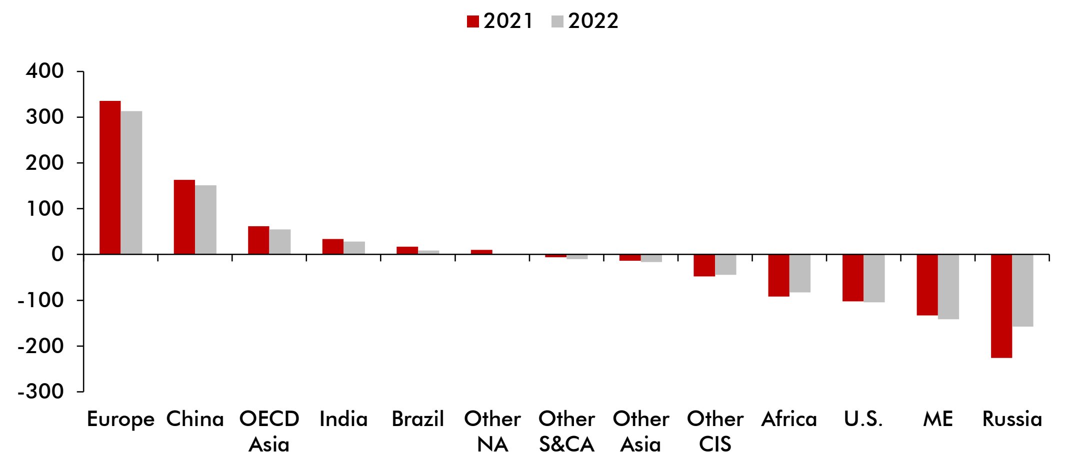


Source: Statistical Review of World Energy 2023, Ambit Capital research; Note: Volumes are in Bcm

...and also changed global trade patters...

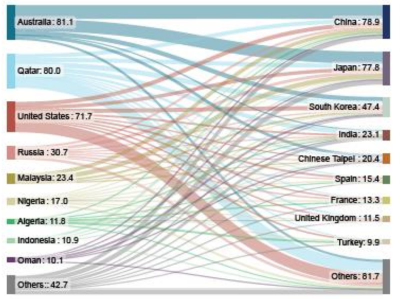
The year 2022 had notable consequences on global trade flows, especially for the two largest gas exporting regions, namely Russia and North America, and the largest importing regions Europe and Asia.

Exhibit 39: Import/export volumes of natural gas decreased from 2021-2022 in most geographies

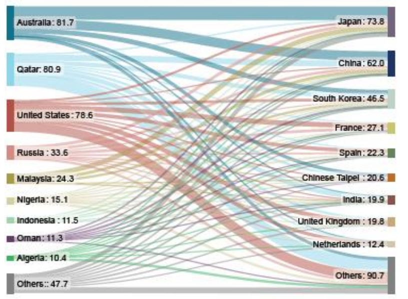


Source: Statistical Review of World Energy 2023, Ambit Capital research; Note: Volumes are in Bcm

Global LNG trade flows 2021



Global LNG trade flows 2022

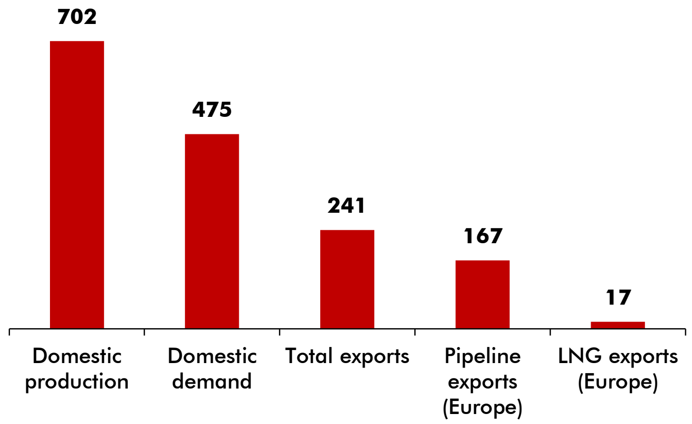


Source: Rystad Energy, Volumes are in MMTPA

Russia's overall exports decreased while U.S. started exporting more to Europe vs. Asia Pacific.

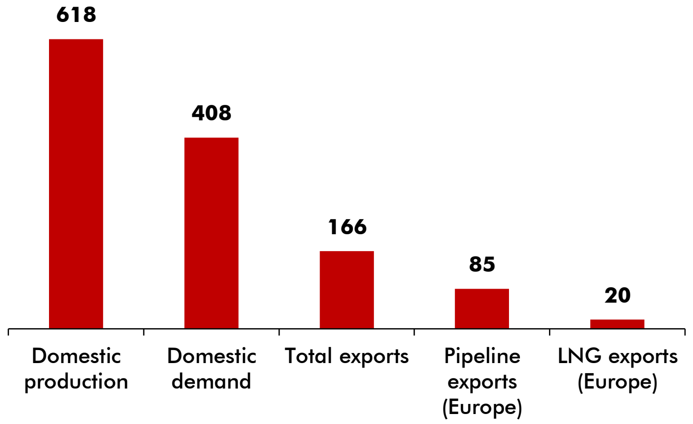
- Russian overall exports fell 75Bcm to 166Bcm in 2022, a decrease of 31% YoY. This was majorly due to 81Bcm Russian pipeline gas stopped flowing to Europe while LNG export increased 3Bcm to 20Bcm.
- U.S. overall exports rose 8Bcm to 187Bcm in 2022, an increase of 5% YoY. This was due to increase in LNG export to Europe by 132% YoY to 72Bcm in 2022. During the same period, LNG export to Asia dipped 47% to 24Bcm.

Exhibit 40: Russian gas flows in 2021; 77% of overall exports to Europe



Source: Statistical Review of World Energy 2023, Ambit Capital research; Note: Volumes are in Bcm

Exhibit 41: Russian gas flows in 2022; overall exports down 31% as European exports decreased 43%

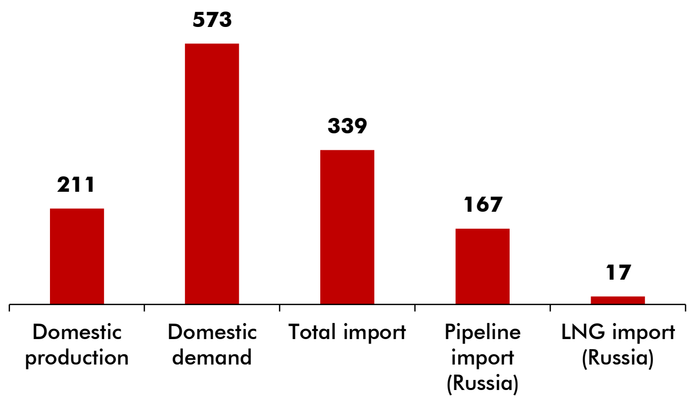


Source: Statistical Review of World Energy 2023, Ambit Capital research; Note: Volumes are in Bcm

Europe became more reliant on LNG vs. pipeline gas

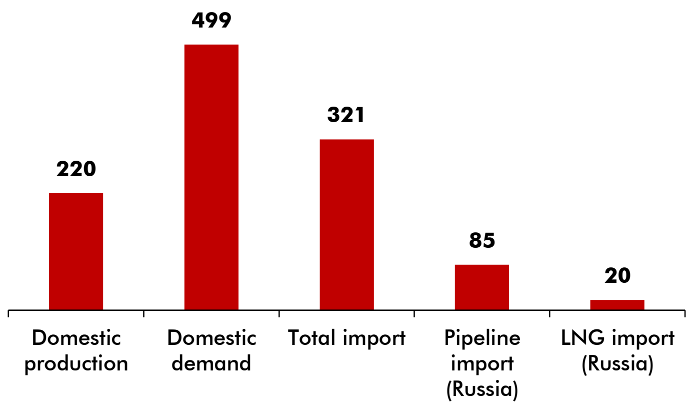
- Europe's overall imports declined 5% YoY to 321Bcm in 2022; pipeline imports fell 35% to 151Bcm while LNG imports increased 58% to 170Bcm.
- Europe's reliance on U.S. increased from 9% in 2021 to 22% in 2022 while it decreased for Russia from 54% to 33%.

Exhibit 42: Europe gas flows in 2021; 54% of overall imports from Russia



Source: Statistical Review of World Energy 2023, Ambit Capital research; Note: Volumes are in Bcm

Exhibit 43: Europe gas flows in 2022; only 33% of overall imports from Russia as volumes fell 43%



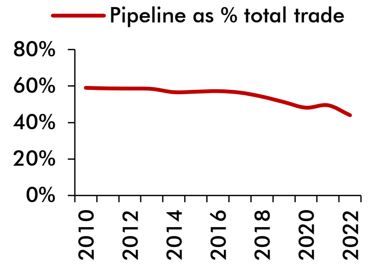
Source: Statistical Review of World Energy 2023, Ambit Capital research; Note: Volumes are in Bcm

...limited LNG infrastructure was the major reason for turbulence in 2022

Despite higher gas production vs. consumption in 2022, there was unprecedented volatility and uncertainty in the gas market due to infrastructure constraints in moving gas from abundant areas to those in demand. Total gas trade was 1,020Bcm in 2021 vs. 528Bcm in 2000, a CAGR of 3%. However, volumes decreased 5% YoY to 969Bcm in 2022.

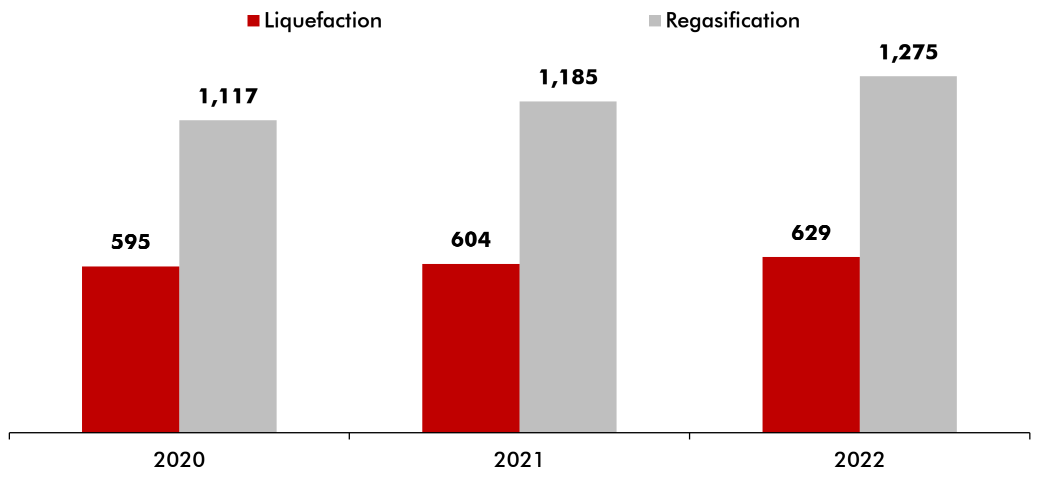
- Pipeline trade was 505Bcm in 2021 vs. 387Bcm in 2000, a CAGR of 1%. Due to the Russia-Ukraine war, volumes down 16% YoY to 426Bcm in 2022. In the case of LNG, volumes grew at a CAGR of 6% during 2000-2021 and reached 516Bcm in 2021 and further increased 5% to 542Bcm in 2022.
- Pipeline volumes fell 78Bcm in 2022 vs. 2021 while LNG could replace only 27Bcm due to lack of liquefaction capacities. At the end of 2022, worldwide liquefaction/regasification capacities were around 629/1,275Bcm and liquefaction utilization is normally about 85%. This implies effective liquefaction volumes of 534Bcm, which is largely similar to LNG trade volumes of 542Bcm in 2022.

Pipeline share in global gas trade decreased to 44% in 2022 from 49% in 2021



Source: Statistical Review of World Energy 2023, Ambit Capital research

Exhibit 44: Huge mismatch between liquefaction (export) and regasification (import) LNG capacities; highlights high gas prices in 2022 was due to lower liquefaction capacities



Source: International Gas Union, Ambit Capital research; Note: Volumes are in Bcm

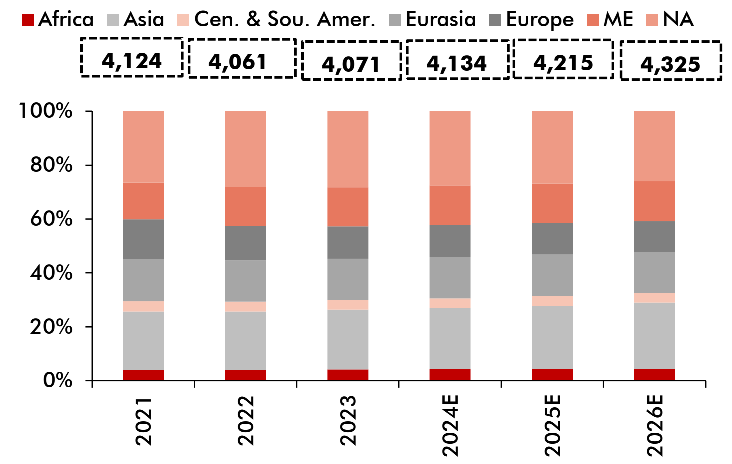
Gradual return to normalcy now

Global gas demand is expected to register moderate growth in 2024 and return to normalcy in 2025-26...

While markets moved towards a gradual rebalancing in 2023, structurally higher gas prices pave the way for a slower and more uncertain demand trajectory. As per IEA, worldwide gas demand is expected to grow at a CAGR of 1.6% in 2022-26 vs. 2.5% CAGR in 2017-21.

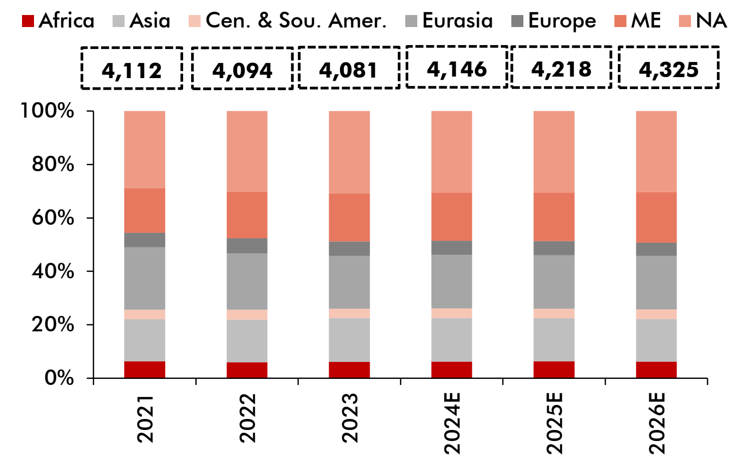
- Natural gas consumption remained broadly flat in 2023 as demand gains in Asia Pacific and the Middle East were almost entirely offset by drops in demand in Europe, Central America and South America.
- Global gas demand is expected to return to moderate growth in 2024 due to Asia Pacific and Middle East and more robust growth in 2025-2026 due to higher LNG liquefaction capacities.

Exhibit 45: Global outlook for natural gas consumption; return to moderate growth from 2024 driven by Asia and Middle East



Source: IEA, Ambit Capital research; Note: Volumes are in Bcm

Exhibit 46: Global outlook for natural gas production; North America and Middle East would be major incremental producers



Source: IEA, Ambit Capital research; Note: Volumes are in Bcm

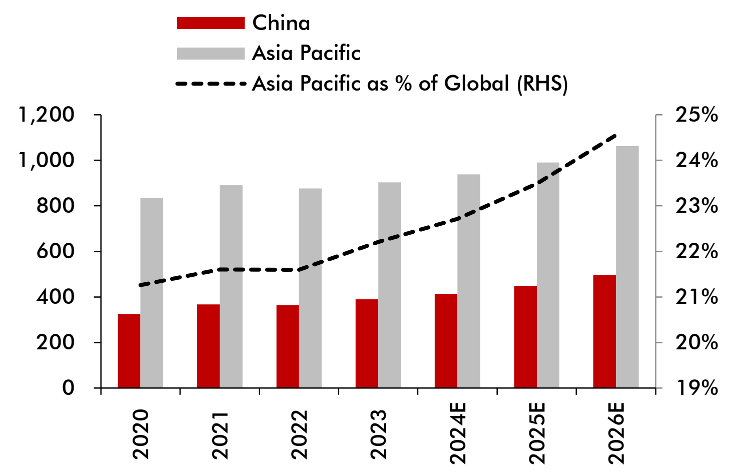
...supported by Asia Pacific and Middle East

Following a 2% decline in 2022, natural gas demand in Asia Pacific region returned to moderate growth of 3% in 2023. In 9MFY24, Asian countries (China, India, Japan and South Korea) imported 151MMT of LNG, which is 3% higher vs. the same period last year.

- Demand is expected to increase at a CAGR of 6% in 2023-2026. Absolute increase of 158Bcm; 62% of global demand.
- Growth would be largely concentrated in China and India while it continues to decline in the region's mature gas markets (Japan and South Korea) amid depressed electricity consumption and improving nuclear availability.

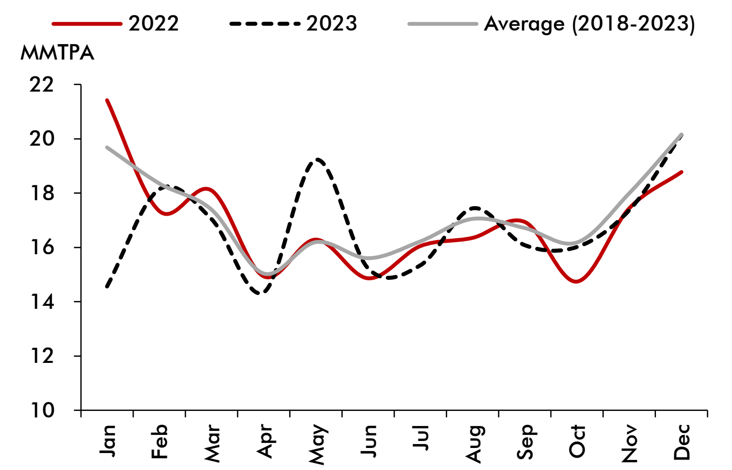
Apart from the Asia Pacific, the other major growth geography is the Middle East. Consumption increased 3%/2% in 2022/23 and is expected to grow at a CAGR of 3% in 2023-26. The absolute increase of 52Bcm; 20% of global demand.

Exhibit 47: Asia Pacific share in global consumption to increase from 22% in 2023 to 25% in 2026; about 47% of Asia Pacific demand from China in 2026 vs. 43%



Source: IEA, Ambit Capital research; Note: Volumes are in Bcm

Exhibit 48: China's LNG imports grew 19% to 55MMT while Japan's fell 9% to 47MMT in 9MFY24 vs. same period last year; India grew 14% and South Korea fell 5%



Source: Bloomberg, Ambit Capital research

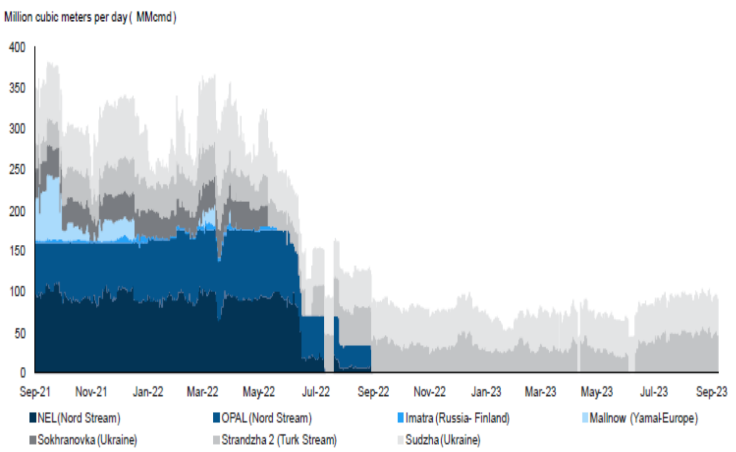
Strong increase in LNG supply from FY26E to ease market fundamentals

Europe needed to replace Russian pipeline gas...

Europe imported 85Bcm of pipeline gas from Russia in 2022 (167Bcm in 2021) which decreased by about 50Bcm to 35Bcm in 2023. No change is expected in Russian pipeline gas supplies to Europe in 2024 vs. 2023. However, Russia's gas transit contract with Ukraine is set to expire at the end of 2024. Ukraine's energy minister has ruled out the possibility of extending the contract following its conflict with Russia. Hence, only TurkStream string 2 (15Bcm/yr) will supply Russian piped gas to Europe starting 2025.

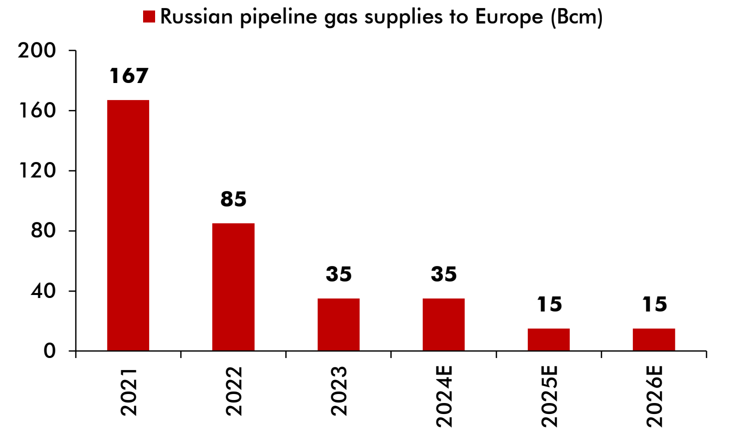
The total replacement volume would be about 187Bcm (167Bcm of pipeline and 20Bcm of LNG); already reduced 132Bcm in 2022-2023 and 20Bcm reduction expected in 2025. TurkStream (15Bcm) and LNG (20Bcm) after 2026.

Exhibit 49: Russian pipeline gas flows to Europe by entry point



Source: International Gas Union, Ambit Capital research

Exhibit 50: Europe has nearly replaced Russian gas, with a minor rebalancing in 2025 and beyond

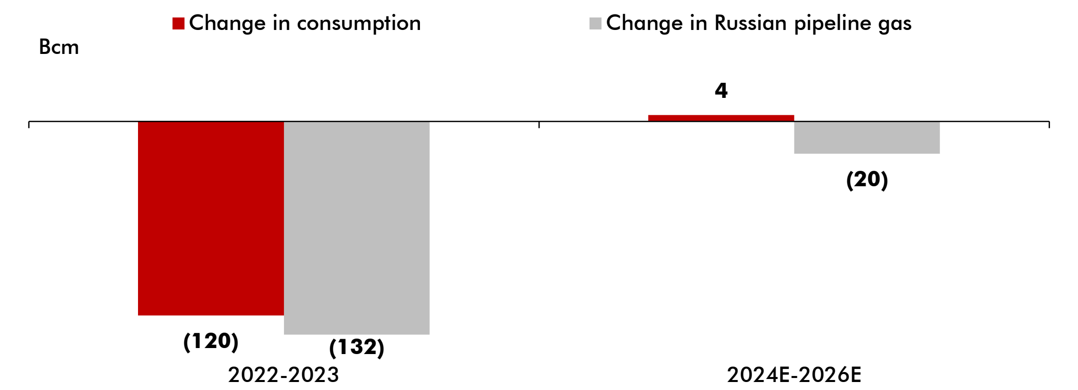


Source: Statistical Review of World Energy 2023, IEA, Ambit Capital research

...despite structural reduction in consumption...

As per IEA, Europe natural gas consumption decreased from 609Bcm in 2021 to 489Bcm in 2023, a decrease of about 120Bcm. It is expected to increase by 7Bcm in 2024 and forecast to remain at almost the same level in 2025-26. The fall in consumption (120Bcm) was lower than decrease in Russian pipeline gas supplies (132Bcm) in 2022-23. This is expected to continue in 2024-26 as consumption is expected to increase by 4Bcm while supplies decrease by 20Bcm.

Exhibit 51: Russian pipeline gas supplies to Europe are expected to decrease by 152Bcm in 2022-26 vs. reduction in consumption of 116Bcm



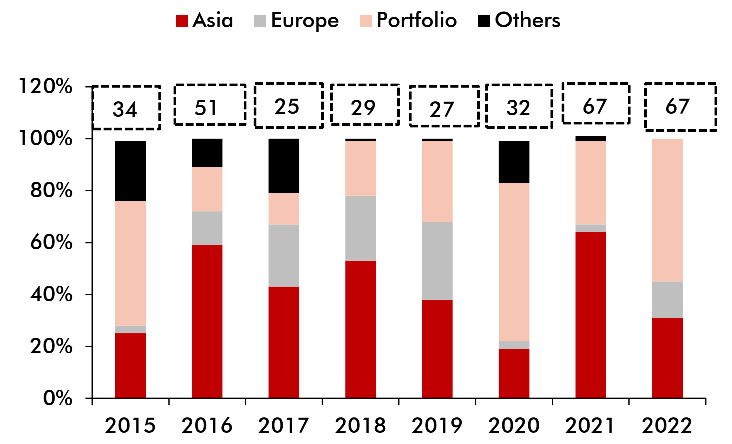
Source: IEA, Ambit Capital research

...this led to fierce competition for LNG supply

Abrupt changes of Russian pipeline flows triggered fierce competition for supply, mainly between Europe and Asia. As highlighted above, Russian pipeline gas supplies to Europe decreased 132Bcm in 2022-23 vs. demand destruction of 120Bcm. Despite minimal mismatch (about 12Bcm in 2 years), Europe imported 130Bcm of extra LNG to avoid uncertainties and maintain minimum gas storage stocks (around 120Bcm storage capacities). Historically, Asia has been the largest purchaser of LNG volumes, followed by Europe. However, following natural gas supply crunch in 2021, newly signed contracts for LNG volumes spiked during 2021 and 2022.

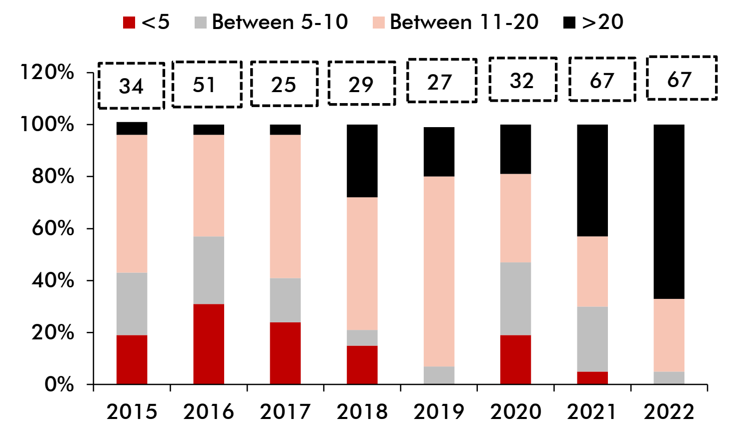
- Asia continued to secure contracted volumes but Europe focused on obtaining spot volumes through portfolio contracts.
- Proportion of long-term agreements have increased. As much as 67% of all new volume signed in 2022 was for over 20 years in length, an increase of 24 percentage points from 2021 which was already at record-high levels.

Exhibit 52: New LNG contracted volumes, split by region



Source: International Gas Union, Ambit Capital research; Note: Volumes are in MMTPA

Exhibit 53: New LNG contracted volumes, split by duration



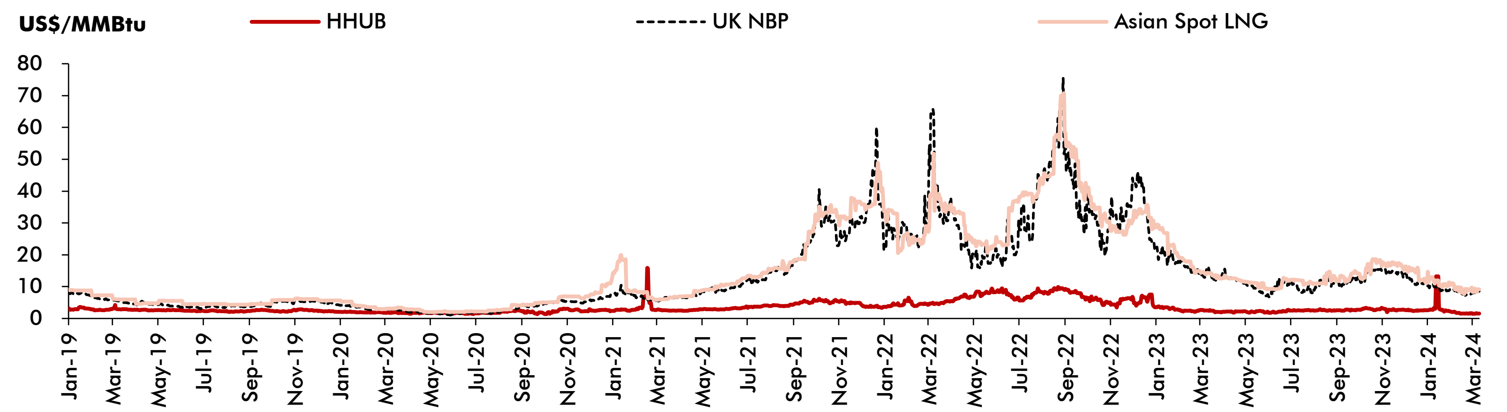
Source: International Gas Union, Ambit Capital research; Note: Volumes are in MMTPA

Peak volatility and uncertainty are behind but still higher vs. historical average...

Since late 2021 gas prices have been elevated and volatile and trade balances tight. Gas prices experienced multiple record spikes after the onset of war in Feb-22 and triggered a cascade of geopolitical and energy sector responses. The peak gas price was seen in late Aug-22, when prices reached an all-time high as Asian spot LNG prices surged past US$70/MMBtu.

- Although prices reduced in 2023 to US$14/MMBtu vs. US$34/MMBtu in 2022, Asian spot LNG prices in 1QCY24 are still roughly two times higher compared to pre-Covid and pre-energy crises levels (US$6/MMBtu) in 2019.
- Also, gas prices show extreme sensitivity to any change in market conditions, real or expected, mainly due to exceedingly tight market balances with no major new supply additions to come for the next one year. This vulnerability was clearly demonstrated by the market's price response to labour strikes at Chevron's facilities in Australia in Sep-23, which have now been resolved.

Exhibit 54: 2022 was the most turbulent year in the history of gas



Source: Bloomberg, Ambit Capital research

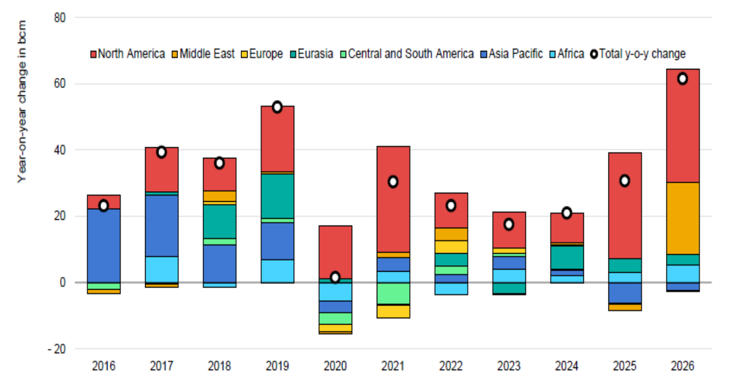
…much needed relief in 2025-26 as major LNG projects come online

80% of incremental LNG supply from North America and Qatar in 2022-2026.

Global LNG supply is expected to expand by 25% (or 130Bcm a year) between 2022 and 2026, with 70% of the supply increase concentrated in 2025-26. Global LNG liquefaction capacity to increase by 18/21Bcm in 2023/2024. We highlight details about major projects below:

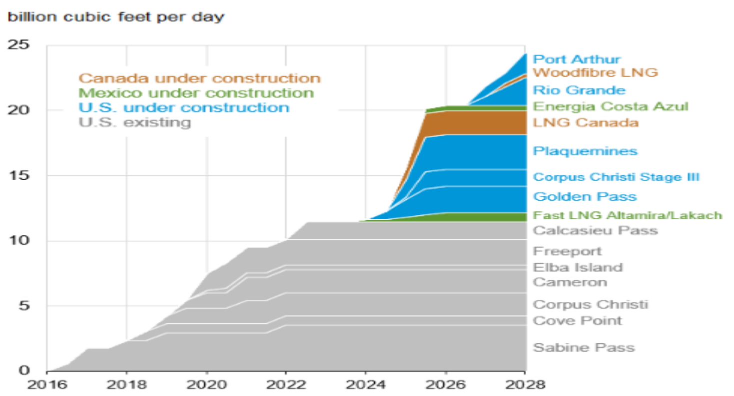
- In the United States, LNG exports are expected to expand by over 60% (or 65Bcm) by 2026 compared with 2022.
- In British Columbia, on Canada's west coast, LNG Canada Phase 1 project is set to ramp up deliveries in 2025 and 2026 with an overall capacity of 19Bcm/yr.
- Qatar took FID on North Field East expansion project in 2021 – the largest FID in the history of LNG with a capacity of 45Bcm/yr. The project is expected to bring additional capacity of 30Bcm/yr in 2025 and further ramp up in 2027.

Exhibit 55: 70% of LNG supply increase concentrated in 2025-2026



Source: IEA, Ambit Capital research

Exhibit 56: North American LNG export capacity by project – existing and under construction (2016-27)

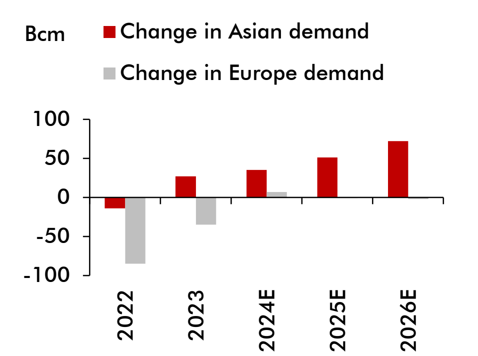


Source: EIA, Ambit Capital research

The world managed 2022-23 through demand destruction and rerouting of LNG trades amid limited new LNG capacity commissioning.

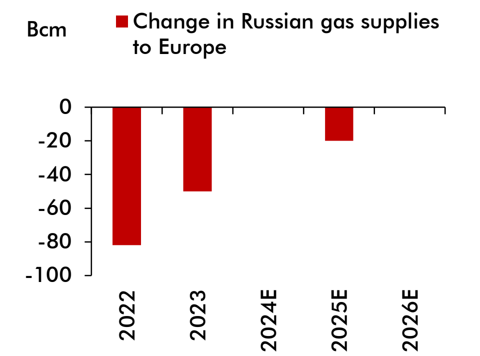
- Considering both structural reduction in demand and Russian pipeline gas supplies as well as status of storage capacity, Europe continues to import extra annual LNG volumes of 60Bcm (vs. 2021). Global LNG capacity would increase by 22/18/21Bcm in 2022/2023/2024.
- As per IEA, Asian demand would recover (35/51/72Bcm in 2024/2025/2026). We do acknowledge that some part of demand would be fulfilled through pipeline gas.

Exhibit 57: Asia Pacific and Europe natural demand to increase only 55Bcm in 2022-26



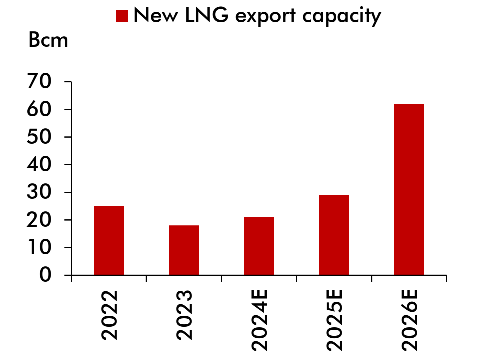
Source: Statistical Review of World Energy 2023, IEA, Ambit Capital research

Exhibit 58: Russian pipeline gas supplies to Europe expected to reduce by 152Bcm in 2022-2026



Source: Statistical Review of World Energy 2023, IEA, Ambit Capital research

Exhibit 59: During 2022-26, LNG export capacity to increase by 152Bcm; however, 91Bcm in 2025-2026



Source: Statistical Review of World Energy 2023, IEA, Ambit Capital research

Gas Empire 'HHUB' would strike back from FY26E...

Global LNG prices are dependent on exporting regions. For example, TTF/Asian spot prices should be equal to HHUB price with additional shipping, liquefaction and premiums. In 2022-2023, this dynamic continues; however, massive demand for LNG imports from Europe propelled TTF to become the premium gas benchmark and also drive Asian LNG spot prices. In our view, TTF remains the global gas benchmark until FY25E but it is unlikely to keep its crown with the strong ramp-up of new LNG projects from FY26E.

We expect Brent to average US$70/bbl in FY28E-30E and US$65/bbl after that. This translates into Asian spot LNG price of US$8.0/US$7.0 per MMBtu.

Exhibit 60: We expect Asian spot LNG to be below US$10/MMBtu in FY25E-27E; largely in line with historical levels

Particular (MMBtu)	U.S. gas export cost				Brent (US$/bbl)	JKM/ Brent	JKM
	U.S. HHUB	Feed gas losses	Transport to Asia	Marginal supply cost to Asia			
FY07-09	7.2	1.1	5.0	13.3	76.7	12%	9.2
FY10-12	3.9	0.6	5.0	9.5	90.3	13%	11.8
FY13-15	3.7	0.5	5.0	9.2	101.1	17%	17.2
FY16-18	2.7	0.4	5.0	8.1	51.3	16%	8.2
FY19-21	2.6	0.4	5.0	8.0	58.7	11%	6.4
FY22-24	4.2	0.6	5.0	9.8	86.2	26%	22.1
FY18	3.0	0.5	5.0	8.5	57.6	14%	8.0
FY19	3.1	0.5	5.0	8.6	70.2	13%	9.1
FY20	2.3	0.3	5.0	7.6	61.0	8%	4.7
FY21	2.4	0.4	5.0	7.8	44.9	12%	5.5
FY22	4.1	0.6	5.0	9.7	80.0	29%	23.1
FY23	5.9	0.9	5.0	11.8	95.6	33%	31.1
FY24	2.5	0.4	5.0	7.9	83.0	15%	12.2
FY25E	2.5	0.4	5.0	7.8	85.0	12%	9.5
FY26E	3.0	0.4	5.0	8.4	80.0	12%	9.2
FY27E	3.0	0.4	5.0	8.4	75.0	12%	8.6

Source: Company, Ambit Capital research

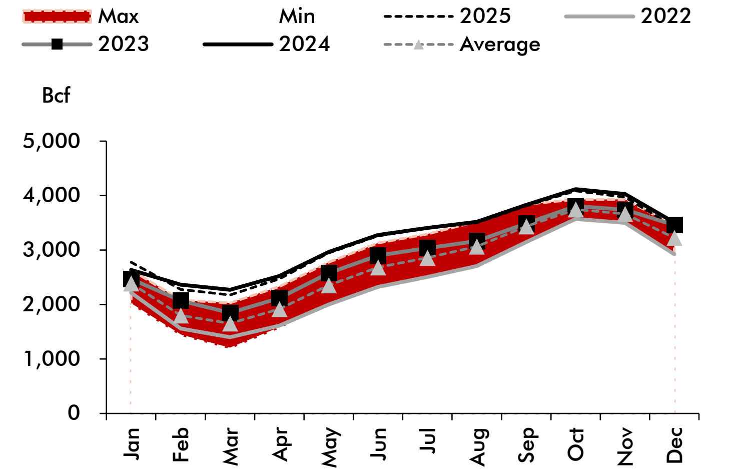
...meanwhile coordinated efforts to provide relief

Due to limited LNG supply addition in the near term and uncertainties about Russian gas, Europe set rules related to storage and price cap for natural gas. They have proved extremely effective yet and continue to be, in our view.

- Despite tight gas balances throughout winter of 2021/22, European storage levels rebounded in mid-2022 after the EU revised gas storage regulations to increase stocks in response to the Russia-Ukraine crisis. On an aggregate level, 2022's goal was reached by end-August 2022, exceeding the targets. For 2023, storage levels in Europe consistently stayed close to, or at, record levels, exceeding the storage objectives set by the EU.

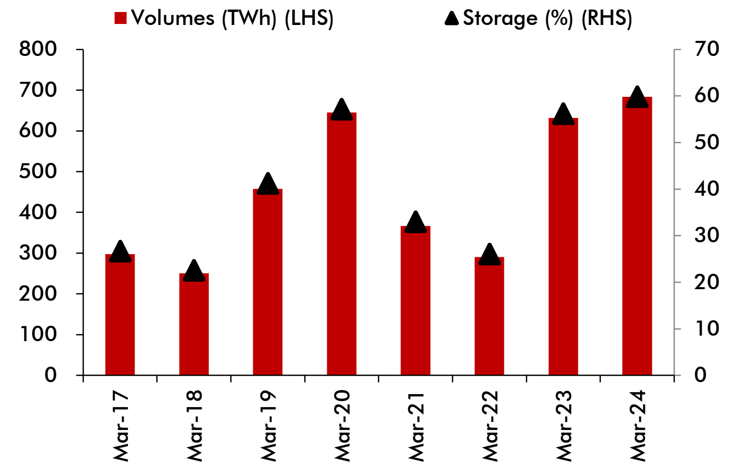
- Also, the European Council reached a consensus in Dec-22, setting a price limit for TTF at 180EUR per megawatt-hour (equalling about US$55/MMBtu). The price cap has been extended till Jan-25.

Exhibit 61: U.S. natural gas inventories continue to be above 5-year range in 2024-2025



Source: EIA, Ambit Capital research; Note: Range of 2019-2023 has been considered and estimates from Apr-24

Exhibit 62: European Union natural gas storage capacity is around 60% full in Mar-24 vs. 40% average



Source: AGSI, Ambit Capital research; Note: Inventories as on 31st Mar 2024 across different time periods has been considered for comparison

'Energy additions' > 'Energy transitions'

India has been trying to diversify its sources of energy with more focus on non-conventional. The share of conventional in the overall energy mix has been declining but not absolute consumption; we expect the trend to continue. Due to increasing energy demand, the government has taken multiple steps to deregulate oil & gas prices while favouring gas through lower taxes. Oil is the major source of energy for the transportation sector but gas and electricity have been becoming popular due to cost advantages, lower tailpipe emissions and improved infrastructure. This led OEMs to launch multiple CNG models across different vehicle categories. The sale of CNG vehicles has been increasing with consistent growth in PVs while other categories have been facing challenges from alternative fuels. This highlights huge potential for CNG to grow due to lower penetration in most categories.

Diversifying sources of energy

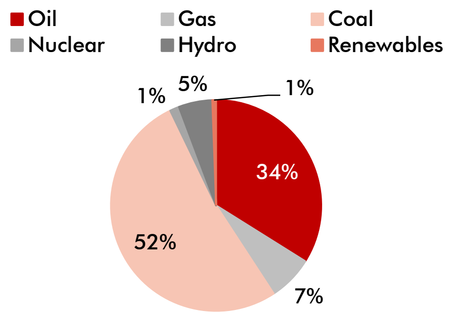
Absolute consumption has increased for all fuels throughout the history...

India's energy sector is one of the most diversified in the world, with sources ranging from conventional such as coal, oil, natural gas, hydro and nuclear power to non-conventional sources such as wind, solar and bio-waste. As per Statistical Review of World Energy, India's primary energy demand increased by 162% during 2002-22 and has only shrunk on one occasion over the last 20 years – in 2020 due to Covid-19. Although certain fuels lost market share, absolute levels of consumption have rarely declined for any of them.

- Oil's share decreased to 28% in 2022 from 34% in 2002. However, energy consumption in absolute terms increased to 10 EJ vs. 4.7 EJ. Petrol share in overall petroleum products reached 16% in FY23 vs. 7% in FY03 while diesel share increased to 39% from 36%.
- Natural gas consumption grew to 2.1 EJ from 1.0 EJ while share decreased. However, both share and absolute consumption have increased for coal.

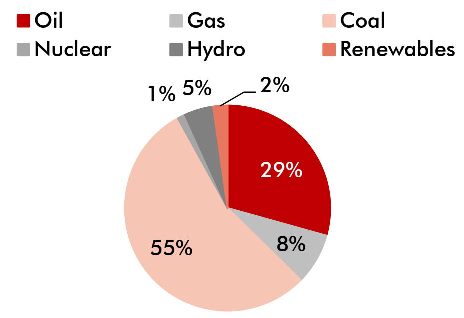
Around 89% of energy consumed in India was from fossil fuels in 2022 (vs. 93% in 2002); the share of coal was highest at 55% followed by oil/gas at 28%/6%.

Exhibit 63: Primary energy consumption by fuel type/source (14 EJ in 2002)



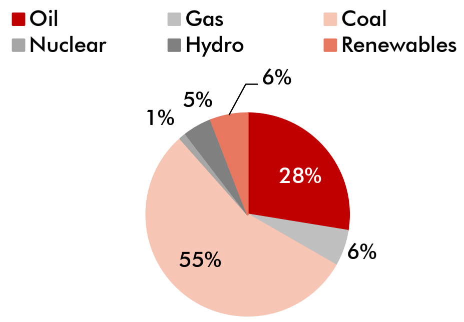
Source: Statistical Review of World Energy 2023, Ambit Capital research

Exhibit 64: Primary energy consumption by fuel type/source (25 EJ in 2012)



Source: Statistical Review of World Energy 2023, Ambit Capital research

Exhibit 65: Primary energy consumption by fuel type/source (36 EJ in 2022)



Source: Statistical Review of World Energy 2023, Ambit Capital research

...multiple energy market reforms brought more market-pricing in oil and gas...

Over the past few years, India's energy sector has undergone a remarkable transformation, successfully implementing policies aimed at diversifying sources of energy and promoting clean energy development. At same time, the government took multiple steps to deregulate oil and gas prices. In our view, this was required to develop infrastructure for these fuels because of increasing energy consumption in the country which couldn't be met through new sources only.

Exhibit 66: Timeline of key energy reforms in India w.r.t to Oil, Gas and EV

Oil (Petrol and Diesel)	LPG	Gas	EV
Jun-10: Petrol price deregulation	**Jan-15:** Nationwide rollout of DBT for LPG	**Nov-14:** Gas price deregulation and linking it with four global gas benchmarks (HHUB, NBP, Russia and Canada).	**Apr-15 to Mar-19 (FAME Phase 1):** In 1st phase of the scheme, about 2.78 lakh EVs were supported with a total demand incentives of ₹3.4bn. In addition, 465 buses were sanctioned to various cities/states under this scheme.
Oct-14: Diesel price deregulation	**May-16:** Launch of Pradhan Mantri Ujjwala Yojana PMUY	**Apr-18 to Jan-22:** 4 CGD bidding rounds (9, 10, 11 and 11A) offered 203 geographical areas covering 79%/77% of India's population/area.	**Apr-19 to Mar-22 (FAME Phase 2):** Budgetary support of ₹100bn for 7,090 e-Buses, 5 lakh e-3 wheelers, 55,000 e-4 wheeler passenger cars and 10 lakh e-2 wheelers
Jun-17: Daily pricing at retail pumps for petrol and diesel	**Oct-22:** LPG grant of ₹220bn to OMCs	**Mar-19:** NGT ban on coal gasifiers and shift to gas in Morbi (Gujarat)	**Apr-22 to Mar-24 (FAME Phase 2):** Extension of the same scheme for 2 years
Oct-18: Cut central taxes on petrol and diesel by ₹1.5/L and asked OMCs to cut ₹1/L further	**Aug-23:** Increased subsidy amount to ₹300 from ₹200 FOR PMUY beneficiaries	**Mar-23:** Zonal three tier tariff for India's gas grid to raise penetration	**Jun-23:** Since-23, FAME scheme has seen reduction in subsidies from 40% of ASP to 15% (in Jun-23) and now <10% (for most OEMs).
FY15-FY21: Multiple times increase in taxes due to lower crude prices		**Apr-23:** New gas pricing policy. APM at 10% slope to crude oil with cap/floor at US$6.5/US$4.0 per MMBTU; cap to increase by US$0.25/MMBTU every year from FY26E. Also, 20% premium pricing for gas from new wells while no change in HPHT formula.	**Mar-24:** The government has introduced a new scheme (replacing FAME-2) for incentivizing EVs viz Electric Mobility Penetration Scheme 2024, which would be in force from Apr-Jul'24 (till new govt. comes in)
Nov-21: Cut central taxes on petrol and diesel by ₹5/L and ₹10/L		**Oct-23:** 12th CGD bidding round to cover 100% of country's population and area	
Mar-Apr 2022: Fuel prices increased by about ₹10/L		**Oct-23:** Delhi EV policy; fully electric fleet for cab aggregators and delivery services by 2030 in NCT	
May-22: Cut central taxes on petrol and diesel by ₹8/L and ₹6/L			

Source: MoPNG, PPAC, Ambit Capital research

...however, lower taxes would promote gas consumption

Excise duty and VAT rates continues to be higher on petrol and diesel vs. natural gas due to ESG concerns and their major contribution to the exchequer. The basic excise duty on CNG is 14%, while there is no excise duty on natural gas in its gaseous form. VAT on natural gas, however, varies from state to state in the range of 0% to 25%.

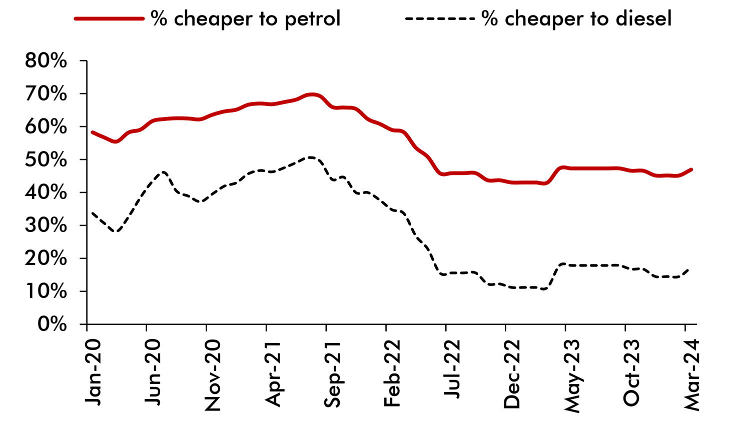
Exhibit 67: Taxes are sharply lower on natural gas vs. petrol/diesel; this implies government promoting cleaner fuels

Fuel/taxes	Basic custom duty	Additional custom duty	VAT	GST
Petrol	2.5%	₹19.9/L or 25%	19.4%	0.0%
Diesel	2.5%	₹15.8/L or 20%	₹250/KL air ambience charges + 16.75%	0.0%
Natural Gas (Compressed)	5.0%	14.0%	0.0%	0.0%
Domestic LPG	0.0%	0.0%	0.0%	5.0%
Non-Domestic LPG	5.0%	0.0%	0.0%	18.0%
Domestic Propane	0.0%	0.0%	0.0%	5.0%
Non-Domestic Propane	2.5%	0.0%	0.0%	18.0%

Source: PPAC, Ambit Capital research; Note: VAT is for Delhi

Apart from the above-mentioned reasons, the main reason for difference in taxation is to keep natural gas (CNG and PNG) retail prices lower vs. alternative fuels. This is to promote gas infrastructure development in the country as penetration is sharply lower vs. the global average.

Exhibit 68: CNG continues to be attractive vs. petrol/diesel; one of the major reason are lower taxes



Source: IGL, Bloomberg, Ambit Capital research; Note: Monthly retail prices in Delhi have been considered, Comparison of CNG vs. alternative fuels is based on price and mileage (CNG LCV - 10 km/kg, Diesel LCV – 10 km/ltr and CNG Car – 26 km/kg, Petrol car - 18 km/ltr)

Exhibit 69: PNG – D continues to be cheaper vs. LPG in the last 5 years

Source: IGL, Bloomberg, Ambit Capital research; Note: Delhi Prices have been considered

A key taxation reform that has been held back by the government despite the Prime Minister's Feb-21 clarion call for implementation is natural gas's inclusion in GST. Currently natural gas suffers from:

- The cascading effect of multiple taxes, both state and centre. The former varies by state and creates administrative and compliance challenges for consumers and intermediaries.
- Relatively high taxation with 14% excise duty on compression of natural gas and additional state VAT ranging from 3-24%. States like Gujarat, where gas accounts for 23% of energy consumption vs. India's 6% and close to 24% global average, have a VAT of 15% on natural gas. Effective taxation on natural gas is ~22%.
- High GST on CNG-powered vehicles is 29-45% akin to taxation on conventional fuel vehicles vs. 5% for EVs.
- Absence of input credit which makes it uncompetitive vs. several competing fuel.

GAIL believes that the inclusion of natural gas in GST and rationalisation of taxation on CNG vehicles on par with clean fuel vehicles like EVs will go a long way in increasing natural gas consumption. This is beneficial for all CGDs as well as gas midstream companies like GAIL and PLNG. We await government action on this front.

OEMs: Focusing on multiple fuel technologies

Low cost of ownership and low tailpipe emission are most important factors for success of new fuel technologies…

The cost of ownership for car owners in India is rising fast due to various factors like high fuel prices, increasing upfront cost of vehicles, higher servicing charges, taxes and new and stringent emissions norms etc. Due to this, car owners and potential car buyers are seeking relief by choosing new technologies such as CNG, EVs and others, which would allow them a lower cost of ownership compared to regular petrol and diesel vehicles. We present comparison of an ICE and EV vehicle below.

- We have considered Tata Tigor XE (Petrol) and Tata Tigor EV – XE for comparison in Delhi.
- Total cost of ownership of EV is lower than petrol for both private and commercial passenger vehicles. However, breakeven would be about 5/2 years for private/commercial vehicles if we just consider initial cost of purchase and fuel cost. This is expected to increase if km/d reduces.
- Total cost of ownership for CNG vehicle is between Petrol and EV; however, breakeven vs. petrol would be about 2 years for private vehicle and even lesser than 1 year for commercial vehicle.

Exhibit 70: Total cost of ownership of a petrol and EV passenger vehicle in Delhi; EVs becomes more beneficial with increasing utilization

Particular	Private Vehicle (100 km/d)		Commercial Vehicle (250 km/d)	
	Petrol	EV	Petrol	EV
	Cost (₹/km)		Cost (₹/km)	
Cost of vehicle	2.1	4.2	0.9	1.7
Insurance	0.2	0.3	0.1	0.1
Battery cost	0.0	1.1	0.0	0.4
Fuel cost	6.3	2.6	6.3	2.6
Maintenance	1.0	0.3	0.4	0.1
Salvage value after 10 years	(0.7)	(1.5)	(0.3)	(0.6)
Total cost of ownership	**8.9**	**7.1**	**7.4**	**4.4**

Source: Bureau of Energy Efficiency (India), Ambit Capital research; Note: No subsidy from the government and purchase without any debt

Like passenger vehicles, economic benefits are for 3 wheelers and commercial vehicles, including trucks and buses. We present total cost of ownership for a diesel and electric bus in Delhi below:

- We have considered Volvo 8400 12m (Diesel) and Tata star bus EV-12m for comparison in Delhi.
- Total cost of ownership of EV is sharply lower vs. diesel and breakeven would be about 3 years if we just consider initial cost of purchase and fuel cost. However, breakeven would be about 5 years if a bus runs only 200 km/d.

Exhibit 71: Total cost of ownership of a diesel and EV commercial bus in Delhi; higher utilization leads to more benefits for buses too

Particular	Commercial Vehicle (350 km/d)	
	Diesel	EV
	Cost (₹/km)	
Cost of vehicle	5.7	16.2
Insurance	0.4	1.2
Battery cost	0.0	4.7
Fuel cost	50.3	7.1
Maintenance	3.3	2.0
Salvage value after 10 years	(2.0)	(5.7)
Total cost of ownership	**57.8**	**25.5**

Source: Bureau of Energy Efficiency (India), Ambit Capital research; Note: No subsidy from the government and purchase without any debt

Apart from economic benefits, another reason for popularity of CNG and EV vehicles is lower tailpipe emission.

Exhibit 72: Details of CO2 emission for different fuel types; one of the major reasons for popularity of new technologies (Gas, EVs and Hydrogen) is lower tailpipe emission

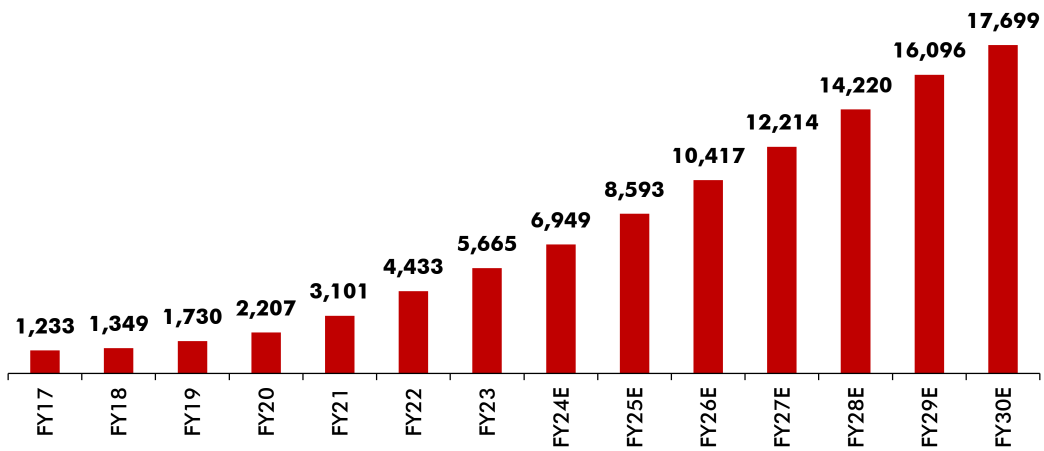
Fuel	Average CO2 emissions (gCO2/km)
FCEV (Hydrogen)	0.0
PHEV (Diesel/Electric)	48.9
Natural gas	102.7
PHEV (Petrol/Electric)	46.4
BEV	0.0
Diesel	121.8
Petrol	123.5

Source: European Environment Agency, Ambit Capital research

...also marketing infrastructure...

Apart from economic and environmental factors, initiatives from the government have been pushing CNG growth. The number of CNG filling stations in the country reached almost 6,348 in Jan-24 from around 1,200 in Mar-17 and the government is planning to set up 19,000 CNG filling stations by 2030.

Exhibit 73: CNG stations are expected to grow at a CAGR of 17% in FY24E-30E



Source: PPAC, Ambit Capital research

...all of which pushed automakers to introduce new models in the market

The Indian automobile industry has experienced tectonic shifts over the last five years with global entrants, new fuel technologies and shifting consumer preferences. As the Indian automotive story unfolds over the next decade, prominence of vehicles powered by alternative fuels on Indian roads is set to grow multi-fold. We focus on CNG initiatives of automakers.

Maruti Suzuki leads with CNG models across range

The auto maker has the largest number of CNG offerings within the passenger vehicle segment in the country. Having tasted initial success with its CNG offerings, the company went on to introduce a CNG version among its most popular offerings.

- The carmaker now offers CNG as an option in 13 of its models vs. 9 two years ago. The company is experiencing higher CNG sales percentage in SUVs like Brezza and Grand Vitara in comparison to entry-level cars like Alto.
- The company sold 328k CNG vehicles in FY23 and has a target of 500k for FY24E.
- Maruti is expecting EVs to make up 15%, hybrids to make up 25% and CNG, flex-fuel and biogas to make up about 60% of its product portfolio by 2030. Also, the company is expecting CNG vehicles to make up around 35% of its entire product portfolio in the domestic market vs. 25% currently.

Exhibit 74: Current CNG variants of Maruti Suzuki in the passenger vehicle category

Model	ICE	EV	CNG
Celerio	Y		Y
Grand Vitara	Y		Y
Swift	Y		Y
Brezza	Y		Y
Ertiga	Y		Y
Baleno	Y		Y
Wagon R	Y		Y
Eeco	Y		Y
Alto	Y		Y
XL6	Y		Y
S-Presso	Y		Y
Fronx	Y		Y
Dzire	Y		Y

Source: Company, CarDekho, Ambit Capital research

Tata Motors goes innovative, frees up boot space and offers automatic drive

Tata Motors entered CNG with Tiago and Tigor in Jan-22 and offers options in four models including Tiago, Tigor and Altroz. It recently introduced the CNG version of Punch.

- The company had about 14% share of CNG (vs. 13% for EV) in its portfolio in 1HFY24. This is sharply higher vs. 3%/8% in FY22/FY23 and it is planning for about 25% share from the CNG market by 2030.
- Instead of offering CNG option only with base variants, the carmaker is offering it in multiple variants where customers can benefit from same features offered with petrol cars.
- The company has placed two 30-litre CNG tanks under the boot floor in a way that it frees up some boot space; resolving one of the biggest issues for customers. It has also unveiled automated manual transmission (AMT) for two of its cars, Tiago (Hatchback) and Tigor (budget sedan).

Hyundai takes entry-level route

The country's second-largest carmaker offers CNG options in entry-level products like Grand i10 Nios, Aura and Exter. CNG powered mass-market models contribute nearly 10% of Hyundai's sales. The company's CNG sales have grown in the past 2 years and management expects sales momentum will continue.

Toyota Kirloskar joins CNG marathon

Toyota forayed into the CNG market in Nov-22 with two models, Glanza and Urban Cruiser Hyryder, both of which are products of Toyota-Suzuki global pact. Recently, the company unveiled seven seater Rumion with CNG powertrain option. The new MPV is a rebadged version of Maruti Ertiga.

Launch of many CNG variants in commercial categories too

- In 2022, Tata Motors launched five CNG-powered Medium & Heavy Commercial Vehicle (M&HCV) trucks in 28 and 19 tonne nodes.
- In 2023, Ashok Leyland unveiled 1922 4X2 truck in the 8.5 tonne segment with multiple cylinder options and four loading span choices to strengthen its CNG portfolio.
- In 2023, Mahindra launched Supro CNG Duo, which can run on both CNG and petrol.

Penetration: Differs across vehicle categories

Sale of CNG vehicles has been increasing in India; however, the trend is much stronger and consistent for PV than any other categories. In the case of buses and 3Ws, we have seen pressure due to increasing popularity of EVs. There was a sharp jump for both trucks and mini trucks in FY22 and a decline after that due to higher CNG prices.

Exhibit 75: Trend of vehicle sales in India based on fuel types and vehicle categories

Particular	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	9MFY24
Trucks										
CNG ONLY	1%	0%	1%	1%	1%	2%	5%	10%	5%	3%
DIESEL	98%	98%	99%	98%	98%	98%	94%	89%	94%	96%
Mini Trucks										
CNG ONLY	1%	1%	2%	3%	3%	3%	4%	14%	12%	11%
DIESEL	89%	88%	88%	89%	90%	92%	84%	73%	76%	76%
ELECTRIC(BOV)	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Buses										
CNG ONLY	4%	3%	4%	5%	4%	8%	9%	12%	14%	8%
DIESEL	96%	97%	96%	95%	95%	91%	86%	79%	81%	86%
ELECTRIC(BOV)	0%	0%	0%	0%	0%	1%	4%	9%	6%	7%
3W										
CNG ONLY	3%	3%	2%	1%	0%	1%	13%	26%	29%	31%
DIESEL	63%	60%	53%	43%	41%	45%	40%	19%	13%	10%
ELECTRIC(BOV)	0%	3%	10%	14%	15%	18%	32%	44%	52%	55%
PETROL	6%	5%	5%	3%	3%	2%	3%	2%	1%	1%
PETROL/CNG	19%	19%	19%	27%	26%	22%	5%	4%	2%	0%
4W (PV)										
DIESEL	56%	51%	48%	46%	45%	44%	34%	34%	33%	32%
ELECTRIC(BOV)	0%	0%	0%	0%	0%	0%	0%	1%	1%	2%
PETROL	36%	41%	43%	45%	44%	46%	55%	54%	50%	47%
PETROL/CNG	5%	6%	7%	5%	6%	6%	6%	7%	9%	12%

Source: Vahan, Ambit Capital research; Note: We present only major fuel types for a particular vehicle category

We do acknowledge that consumers have been very selective when it comes to fuel types and it is thus very hard to replace conventional fuels and compete with new sources like EVs. Still, all vehicle categories present huge opportunities for CNG to grow due to lower penetration, increasing overall energy demand, improving CNG infrastructure and favourable economics vs petrol/diesel.

Exhibit 76: Penetration based on fuel types across different vehicle categories in India

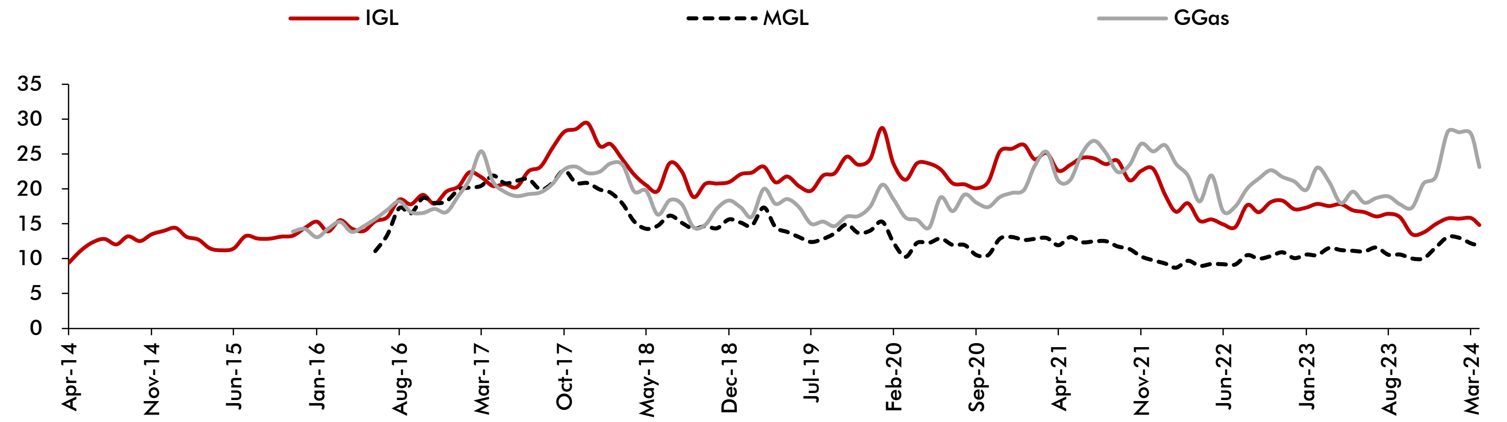
Particular	Trucks	Mini Trucks	Buses	3W	4W (PV)
CNG ONLY	2%	5%	6%	11%	0%
DIESEL	96%	85%	92%	37%	42%
ELECTRIC(BOV)	0%	0%	2%	26%	0%
LPG ONLY	0%	0%	0%	1%	0%
PETROL	0%	3%	0%	3%	46%
PETROL/CNG	0%	1%	0%	15%	7%
PETROL/HYBRID	0%	0%	0%	0%	2%
PETROL/LPG	0%	0%	0%	7%	1%

Source: Vahan, Ambit Capital research; Note: We have considered data from FY15 to 9MFY24 to calculate penetration. We present only major fuel types for a particular vehicle category

Growth premium drives India CGD valuations

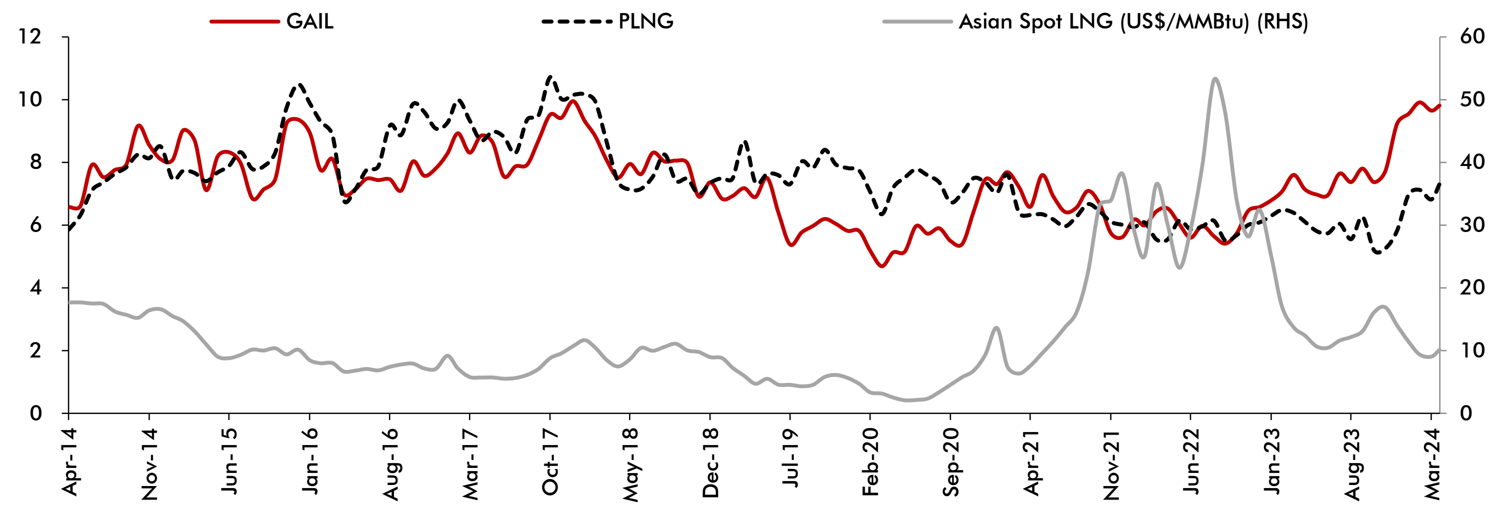
Unlike India where standalone CGDs exist, globally listed gas companies have integrated business models with mostly utility income streams. Despite their scale, Chinese CGDs can grow volumes at 5-8% CAGR in 2024-26. However, their return profiles are lower vs Indian CGDs. Volume growth longevity and high RoE are key factors that have kept Indian CGD valuations at a 40% premium to global gas utility peers. We prefer GGas as it is expected to report double-digit volume growth in the next 3 years, while it is single digit for IGL and MGL. Margins are also going to improve due to a decline in spot LNG while reversing to historical levels for the other two. Even GGas' long-term prospects look better due to authorization for industrial customers-centric areas which would benefit from pollution curbs and also have more stickiness. We value IGL, MGL and GGas at 17x, 11x and 24x 1-yr fwd P/E. Higher valuation for GGas are due to better prospects and higher number of Gas. Lower valuations for the other two are due to pressure on margins and specific issues with GAs.

Exhibit 77: On the basis of long-term average of 1-yr fwd P/E, MGL and IGL are currently trading at a discount while GGas is at a premium



Source: Bloomberg, Ambit Capital research

Exhibit 78: GAIL and PLNG valuations improved significantly given decrease in gas prices (1-yr fwd EV/EBITDA)



Source: Bloomberg, Ambit Capital research

Exhibit 79: Assessment of utilities and CGDs

Particular	GAIL	PLNG	CGDs
Regulatory risks	◐ Regulatory risks are mostly related to transmission tariffs and capping of spread for the marketing segment.	● Regasification charges would have more scrutiny amid increasing volumes and growing competition.	○ CGDs are prone to regulations due to EVs, end of marketing & infrastructure exclusivity and pollution curbs. Regulations would most likely be in favour of GGas and against retail-focused CGDs like IGL and MGL.
Volume trajectory	● GAIL is the prime beneficiary of increasing natural gas consumption in the country; however, the scalability of petchem and LPG production businesses remains a challenge amid cost inefficiencies and competition from RIL and OMCs.	○ LNG dependency is expected to increase over time. This is expected to benefit PLNG. However, terminal utilization would be subdued vs. past due to growing competition.	◐ Volumes continue to increase due to entry into new GAs and increasing penetration in existing areas. Among our coverage, GGas is expected to register the highest volume growth due to more skew towards industrial volumes as well as the highest number of GAs.
Gas costs	○ Petchem and LPG production businesses continue to struggle amid high gas costs.	● Marginal impact on volumes, especially spot if prices increase above US$15/MMBtu.	◐ All companies under our coverage can manage high gas costs to a large extent. GGas would be the safest given lowering spot LNG prices while we prefer MGL>IGL due to high pricing power vs. alternative fuels.
Earning risks	● Gas Transmission and Gas Marketing will lead to consistent earnings growth. However, non-utility businesses will remain subdued vs. FY21-22.	◐ Consistent single-digit growth in earnings but sharply lower vs. past. Earnings are at low risk vs. CGDs due to more secured volumes and less prone to high gas costs.	○ Low earnings growth for the next 3 years for IGL and MGL due to the reversion of margins to historical levels. GGas would report double-digit earnings growth. Significant slowdown beyond FY27E vs. past.
Reinvestment opportunities	● GAIL is present across the entire gas value chain. The company has been entering new businesses since inception and still has plans ranging from exploration to marketing to new energy.	○ The company has been struggling to deploy excessive cash; however, it finally decided to foray into the petchem business. This is worrisome because of lack of expertise and long gestation of the project.	◐ CGDs don't have capabilities like GAIL but lower penetration and new energy initiatives (CBG, EV charging, battery swapping) provide enough growth opportunities.
RoE Trajectory	● Marginal pressure on return profile amid continuous weak performance from non-utility businesses. GAIL also has aggressive Capex plans but not like other gas companies and most of that would be for core Gas Transmission business.	○ PLNG is planning to spend about ₹250bn in the next 5 years for the Petchem project and Gopalpur LNG terminal. This is expected to put immense pressure on return profile and we expect a RoE of 13% in FY25E-29E vs. 24% in FY19-24E.	◐ CGDs to increase capex mainly for expansion in new GAs. This would put pressure on return profile as new GAs are less attractive; highest pressure for MGL>IGL>GGas.
Valuation	○ PNGRB's new regulations for natural gas pipeline tariff in Mar-23, new guidelines for APM pricing in Apr-23 and consistent increase in natural gas consumption in the country provided a huge boost to valuations in the last one year. The stock is trading at 33% premium on 1-yr fwd EV/EBITDA.	◐ PLNG's valuation took a massive hit after announcement of foray into petrochemicals but the stock recovered from the lows of Oct-23 due to softness in spot LNG prices. Still, trading at 2% discount on 1-yr fwd EV/EBITDA.	● Multiples recovered for all three companies due to expectations of revival of volume growth amid decrease in gas costs and infrastructure expansion. MGL and IGL are trading at sharp discount to long-term average but GGas is at a premium.

Source: Company, Ambit Capital research; Note: ● - Strong; ◐- Average; ○ - Weak

Exhibit 80: Valuation summary: Indian CGDs trade at a premium to global peers due to better return profile

Company	Rating	M Cap. ($ bn)	Valuation Ratios						Return Ratios		EPS CAGR FY24-26E
			P/B (x)		P/E (x)		EV/EBITDA (x)		ROE (%)		
			FY25/ CY24	FY26/ CY25	FY25/ CY24	FY26/ CY25	FY25/ CY24	FY26/ CY25	FY25/ CY24	FY26/ CY25	
Indian Companies											
CGDs											
Indraprastha Gas Ltd	SELL	4.0	3.4	3.0	17.2	16.1	11.8	10.8	20.5	19.1	5%
Mahanagar Gas Ltd	SELL	1.7	2.6	2.3	13.0	12.5	7.4	7.1	21.1	19.1	-4%
Gujarat Gas Ltd	BUY	4.7	4.5	4.0	29.3	24.2	17.0	15.2	16.4	17.1	23%
Mean		**3.5**	**3.5**	**3.1**	**19.8**	**17.6**	**12.0**	**11.0**	**19.3**	**18.4**	
Median		**4.0**	**3.4**	**3.0**	**17.2**	**16.1**	**11.8**	**10.8**	**20.5**	**19.1**	
Gas Utilities											
GAIL India Ltd	SELL	16.0	1.9	1.8	13.9	12.9	10.5	9.7	14.8	14.5	6%
Petronet LNG Ltd	SELL	5.5	2.5	2.2	13.1	12.3	7.8	7.2	20.0	19.0	5%
Gujarat State Petronet Ltd	NR	2.6	2.0	1.8	17.6	16.9	15.1	14.5	11.4	11.3	0%
Mean		**8.0**	**2.1**	**1.9**	**14.9**	**14.0**	**11.1**	**10.5**	**15.4**	**14.9**	
Median		**5.5**	**2.0**	**1.8**	**13.9**	**12.9**	**10.5**	**9.7**	**14.8**	**14.5**	
Upstream											
Oil & Natural Gas Corp Ltd	BUY	42.5	1.0	1.0	7.4	7.2	4.6	4.5	15.1	14.2	3%
Oil India Ltd	NR	8.1	1.4	1.3	9.1	8.0	6.8	5.8	17.4	17.0	18%
Mean		**25.3**	**1.2**	**1.1**	**8.2**	**7.6**	**5.7**	**5.2**	**16.2**	**15.6**	
Median		**25.3**	**1.2**	**1.1**	**8.2**	**7.6**	**5.7**	**5.2**	**16.2**	**15.6**	
OMCs											
Indian Oil Corp	UR	28.3	1.3	1.2	9.5	9.7	6.8	6.6	14.0	12.6	-26%
Bharat Petroleum Corp	UR	15.4	1.6	1.5	10.0	10.7	5.8	5.8	17.0	14.8	-34%
Hindustan Petroleum Corp	UR	8.0	1.4	1.3	6.7	6.4	6.2	6.0	23.9	20.7	-18%
Mean		**17.2**	**1.5**	**1.3**	**8.8**	**8.9**	**6.3**	**6.2**	**18.3**	**16.1**	
Median		**15.4**	**1.4**	**1.3**	**9.5**	**9.7**	**6.2**	**6.0**	**17.0**	**14.8**	
Diversified											
Reliance Industries Ltd	SELL	239.2	2.2	2.0	23.7	20.9	12.4	11.1	9.6	9.8	16%
Global Gas Companies											
Tokyo Gas Co Ltd*	NR	42.5	0.9	0.9	14.2	14.6	6.9	7.1	6.2	5.7	-14%
Hong Kong & China Gas	NR	239.2	1.8	1.8	17.3	16.5	13.2	12.5	10.6	11.3	5%
Town gas Smart Energy	NR	8.1	0.4	0.4	7.3	6.6	7.0	6.2	5.9	6.4	11%
China Gas Holdings Ltd	NR	28.3	0.6	0.6	7.8	7.1	8.2	7.7	8.2	8.5	12%
ENN Energy Holdings Ltd*	NR	15.4	1.4	1.3	9.1	8.3	6.5	6.0	15.7	15.7	6%
Perusahaan Gas Negara*	NR	8.0	0.8	0.6	7.1	7.1	3.4	3.5	9.5	9.7	4%
PETRONAS Gas*	NR	10.1	2.5	2.5	18.3	17.8	10.0	10.0	13.9	13.8	3%
Enterprise Products Partners	NR	13.9	2.2	2.1	10.8	10.3	9.5	9.1	20.5	20.6	6%
Kinder Morgan*	NR	1.3	1.3	1.3	14.9	14.4	9.1	8.9	9.0	8.9	7%
Williams Cos Inc*	NR	5.0	3.8	3.7	21.7	19.0	10.4	9.7	18.2	20.6	0%
ONEOK Inc*	NR	9.4	2.7	2.6	15.7	14.2	10.9	10.3	18.0	19.2	1%
Mean		**34.7**	**1.7**	**1.6**	**13.1**	**12.4**	**8.6**	**8.3**	**12.3**	**12.8**	
Median		**10.1**	**1.4**	**1.3**	**14.2**	**14.2**	**9.1**	**8.9**	**10.6**	**11.3**	

*Source: Company, Bloomberg, Ambit Capital research; Note: * indicates Dec year end*

MGL (SELL): Lack of upside triggers now

MGL was focused on margins in the last 3 years but it changed its strategy from 3QFY24. The company reduced CNG/PNG-D prices by ₹5.5kg/2scm in 2HFY24 and offered free fuel to attract new CNG consumers. Due to increasing focus on volumes and scope to grow, we increased our volume CAGR from 4%/3% to 6%/4% for FY24E-27E/FY24E-40E. In case of margins, we expect some pressure due to decreasing APM allocation; however, normalization in gas market, priority HPHT allocation and contracted volumes would be supportive. This along with inclusion of Unison increased our target valuation by 30% to ₹1,250. The stock price increased 45% in last 12 months due to better-than-expected quarterly results amid lower gas prices, completion of Unison acquisition and overall bullishness in PSU stocks. In our view, the company lacks any major upgrades now and current multiples are higher considering its GAs and moderate earnings growth profile. We maintain SELL and our valuation for MGL implies 11x FY26E P/E vs its current/long-term multiple of 13x/14x.

Lower penetration provide opportunities

Petrol and diesel continue to dominate...

Maharashtra's first EV policy was released in Feb-18. To accelerate EV sales and stimulate manufacturing in the state, Maharashtra has updated its EV Policy in Jul-21.

- The primary objective of updated policy is to accelerate adoption of BEVs so that they contribute 10% of new vehicle registrations by 2025; 10%, 20% and 5% for 2Ws, 3Ws and 4Ws respectively.
- 25% electrification of public transport and fleet aggregators/operators by 2025 in Greater Mumbai, Pune, Nagpur, Nashik and Aurangabad. Also, MSRTC to convert its existing bus fleet to 15% electric.
- Starting Apr-22, all new government vehicles (owned/leased) operating within the major cities to be electric.

Despite having one of the most comprehensive policies in the country, implementation has been slow throughout and there have been multiple deferrals. This was due to lack of infrastructure and incentives for both manufacturer and consumers.

- Apart from 3Ws, penetration of CNG and EVs are miniscule across all vehicle categories. Penetration of EV buses was just 4% at the end of Dec-23, which is sharply lower than the target of 25% by 2025.
- There is not much progress on electrification of new government vehicles despite the deadline of Apr-22.

Exhibit 81: Penetration based on fuel type across different vehicle categories in Maharashtra

Particular	Trucks	Mini Trucks	Buses	3W	PV
CNG ONLY	1%	7%	8%	15%	0%
DIESEL	96%	89%	87%	11%	41%
ELECTRIC(BOV)	0%	0%	4%	3%	1%
LPG ONLY	0%	0%	0%	2%	0%
PETROL	0%	3%	0%	7%	38%
PETROL/CNG	0%	1%	0%	52%	14%

Source: Vahan, Ambit Capital research; Note: We have considered data from FY15 to 9MFY24 to calculate penetration. We present only major fuel types for a particular vehicle category

We do acknowledge that consumers have been rapidly shifting away from conventional fuels in the last 5 years and trend is stronger for major cities like Mumbai and Pune. Still, all vehicle categories present huge opportunities for both CNG and EVs to grow as they are still dominated by petrol and diesel.

Exhibit 82: Trend of vehicle sales in Maharashtra based on fuel types and vehicle categories

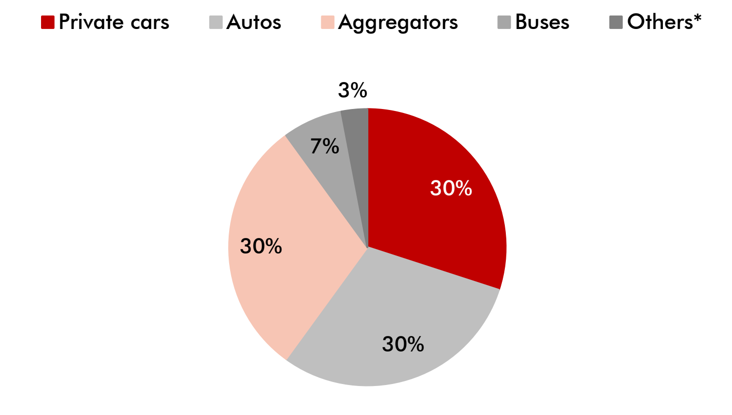
Particular	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	9MFY24
Trucks										
CNG ONLY	1%	1%	0%	0%	0%	0%	1%	7%	3%	1%
DIESEL	96%	97%	98%	99%	99%	99%	92%	89%	94%	97%
Mini Trucks										
CNG ONLY	0%	0%	0%	0%	0%	0%	4%	25%	19%	15%
DIESEL	97%	98%	98%	99%	98%	98%	84%	64%	75%	77%
Buses										
CNG ONLY	8%	2%	1%	0%	0%	22%	11%	26%	11%	5%
DIESEL	91%	98%	99%	99%	99%	75%	64%	39%	82%	85%
ELECTRIC (BOV)	0%	0%	0%	0%	1%	3%	25%	34%	8%	9%
3W										
CNG ONLY	2%	2%	4%	1%	0%	1%	43%	65%	63%	67%
DIESEL	11%	14%	10%	8%	10%	15%	21%	13%	10%	8%
ELECTRIC (BOV)	0%	0%	0%	1%	1%	1%	5%	9%	15%	15%
LPG only	0%	0%	0%	0%	0%	0%	5%	5%	7%	8%
PETROL	21%	15%	12%	6%	6%	4%	2%	0%	0%	0%
PETROL/CNG	57%	60%	65%	73%	67%	64%	20%	7%	5%	1%
4W (PV)										
DIESEL	49%	47%	46%	46%	46%	46%	35%	36%	34%	29%
ELECTRIC (BOV)	0%	0%	0%	0%	0%	0%	0%	1%	2%	3%
PETROL	35%	40%	40%	41%	36%	36%	43%	40%	38%	36%
PETROL/CNG	12%	10%	11%	9%	10%	11%	15%	15%	19%	24%

Source: Vahan, Ambit Capital research; Note: We present only major fuel types for a particular vehicle category

...CNG is becoming popular across Maharashtra

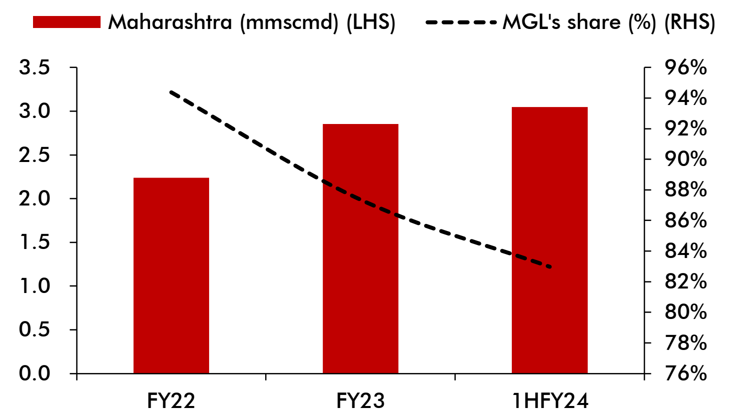
Despite multiple uncertainties, MGL's fleet grew at a CAGR of 9% in FY18-23. About 30%, 30%, 30% and 7% of MGL's CNG demand are from private cars, auto rickshaws, aggregators and buses (BEST, NMT, MSRTC and others) respectively. The remaining 3% is from commercial goods. Also, CNG is becoming popular in Maharashtra beyond MGL's GAs.

Exhibit 83: Current (3QFY24) CNG volumes of 2.6mmscmd based on vehicle categories



Source: Company, Ambit Capital research; Note: Others majorly include commercial vehicles

Exhibit 84: Despite absolute increase, MGL's share in Maharashtra reduced to 83% in 1HFY24 vs 94% in FY22



Source: PPAC, Company, Ambit Capital research

Existing geographical areas have scope to grow

Despite operating for more than 25 years in Mumbai and adjoining areas and Raigarh, these areas still have potential for growth:

- More commercial goods vehicles on CNG due to availability of OEM's CNG vehicles. In the case of Delhi, CNG dominates trucks and mini trucks which is also possible for MGL.
- The company recently tied up with passenger vehicle OEMs to offer fuel cards worth ₹20k free to car buyers and fuel worth ₹0.2mn, ₹0.35mn and ₹0.5mn to small, medium and large CV buyers respectively. The scheme ended but MGL will be able to pull out such short-term schemes in future too to increase CNG popularity.
- Overall PNG-D penetration is still about 50% (only 20% for Raigad), which provides huge opportunities. The company has been expanding its infrastructure to reach more PNG customers.
- Increasing population and per capita income continue to increase demand for energy, including natural gas.

Exhibit 85: Summary of MGL's geographical areas with focus on existing infrastructure, MWP and PNG-D penetration

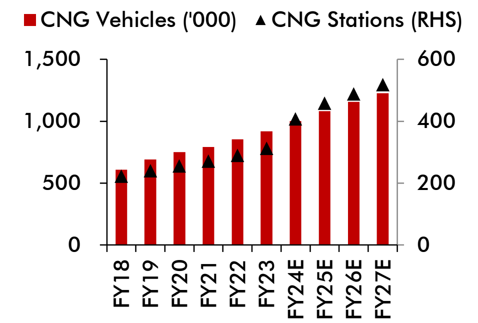
Geographical area	Status as on 30th Sep-23				MWP		Households (2011)	Adjusted households (2024)	Penetration (%)
	CNG stations	PNG-D	PNG-C	PNG-I	CNG	PNG-D			
Raigarh District	32	70,654	3	7			611,790	348,137	20%
Mumbai & Greater Mumbai	153	1,171,850	3,224	121			2,779,943	2,214,684	53%
Thane	142	1,011,749	983	301			2,529,165	2,014,898	50%
Total	**327**	**2,254,253**	**4,210**	**429**			**5,920,898**	**4,577,719**	**49%**

Source: PPAC, PNGRB, Census India, Ambit Capital research; Note: We have assumed a CAGR of 1% to calculate households in 2024 as census data is only available for 2011. Also, household data in 2024 has been adjusted for slum houses which won't receive PNG connections anytime soon.

- MGL added around 30 CNG stations annually in FY22-24E and about 5,800 vehicles per month. The growth was superior vs. FY19-21 when the company added 5k vehicles per month and 15 CNG stations on an annual basis. We expect MGL to add 6,300 vehicles per month in FY25E-27E and about 30 CNG stations per year.
- The company has been aggressively adding households as well as industrial and commercial customers. Despite Covid-19, MGL added 342,000 new households in FY21-23, about 23% of the total at the end of FY23. Also, it added 537 industrial and commercial customers during the same period, which represents 12% of the total. We expect aggressive network additions to continue and likely increase in PNG customers.

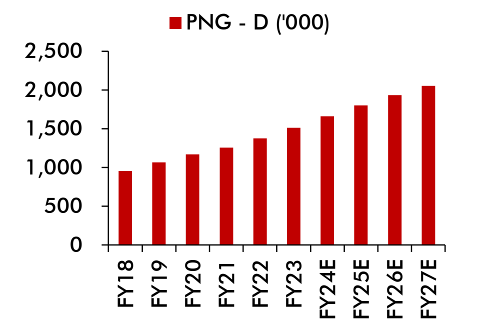
CNG vehicle conversion per quarter was 22,400 in 3QFY24 vs. 19,900, 14,750 and 13,700 in 2QFY24, 1QFY24 and 4QFY23.

Exhibit 86: Vehicles to reach 1.2mn in FY27E and stations around 500



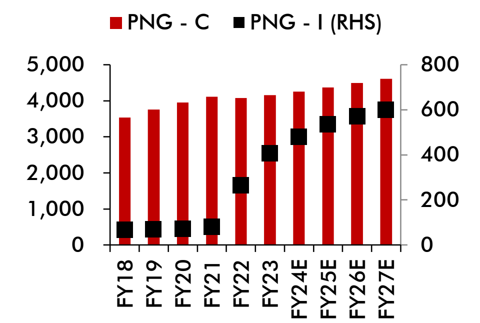
Source: Company, Ambit Capital research; Note: Includes Unison from FY24E

Exhibit 87: We expect 7% CAGR in PNG-D in FY24E-27E; addition of 0.4mn



Source: Company, Ambit Capital research; Note: Includes Unison from FY24E

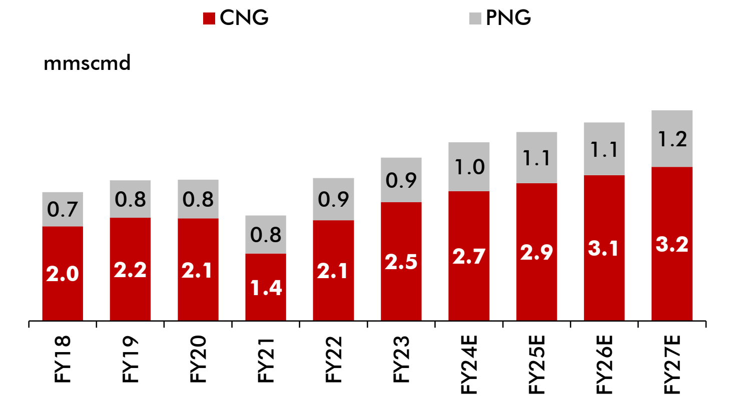
Exhibit 88: 3% CAGR in FY24E-27E; annual addition of about 160



Source: Company, Ambit Capital research; Note: Includes Unison from FY24E

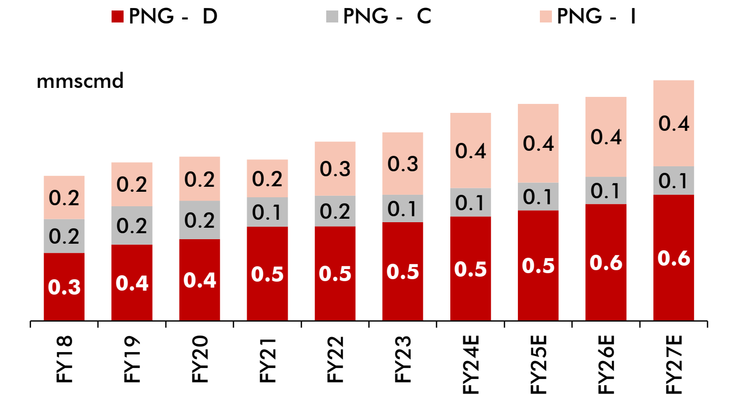
Management remains committed to annual volume growth guidance of 5-6% over the next 3-5 years. We expect growth in both CNG and PNG to continue in Mumbai as well as other Gas, with major contributions from Thane, Raigad and Unison. Overall volume is expected to grow at a CAGR of 6% in FY24E-27E.

Exhibit 89: CNG volumes are expected to grow at a CAGR of 6% in FY24E-27E vs. 5% FY18-24E



Source: Company, Ambit Capital research; Note: Includes Unison from FY24E

Exhibit 90: In the case of PNG, CAGR is expected to be 5% vs. 6% in the past; mostly from PNG-D&I



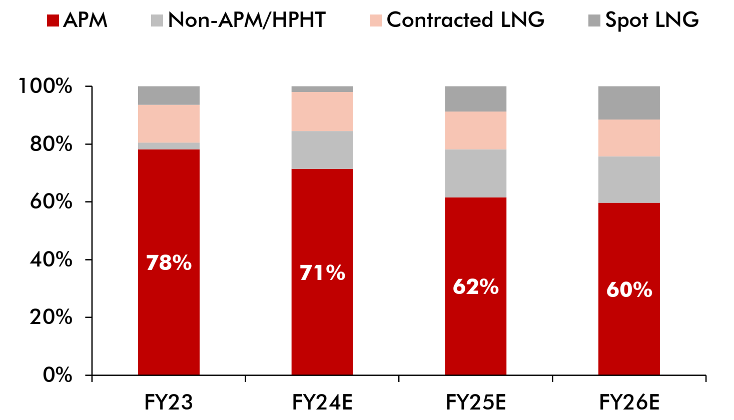
Source: Company, Ambit Capital research; Note: Includes Unison from FY24E

Margins to revert to historical level

MGL consistently reported margin expansion over FY17-21, wherein EBITDA/scm increased from ₹6.7 to ₹11.3. Despite the most challenging time in its history, FY22-23, MGL maintained margins of ₹8.7. With normalization in the gas market and introduction of new APM formula, margins increased to ₹14.7 in 9MFY24. We expect EBITDA/scm to be ~₹10.5 in FY25E-27E and marginally below ₹10 afterwards.

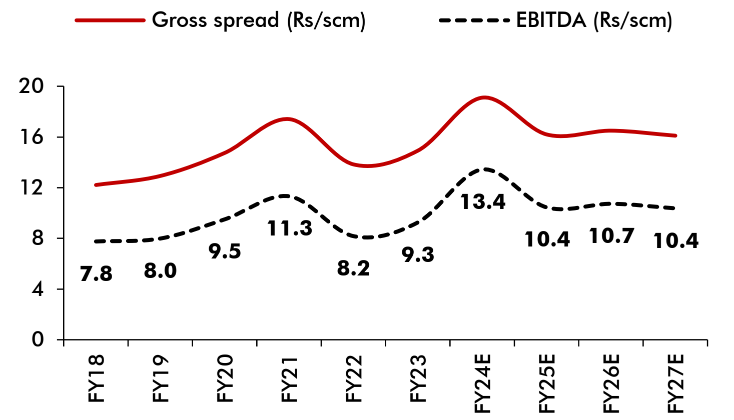
- The biggest challenge for margins is decreasing allocation of APM gas. APM used to meet 100% of priority sector demand until FY21; however, it reduced to about 78% in 3QFY24. We expect APM to meet only 65% of demand in 4QFY26E.
- Despite this, we expect EBITDA/scm to be ~₹10.5 in FY25E-27E. This is due to softness in gas prices, priority in HPHT gas allocation and contracted volumes of about 0.8mmscmd consisting of HPHT and RLNG.
- The absolute difference between CNG and petrol/diesel prices in Mumbai is about ₹31/₹19 while CNG is 51%/20% more economical. This highlights MGL's pricing power, and it is well-placed vs other CGDs to increase prices if required.

Exhibit 91: Share of LNG is expected to increase in overall gas sourcing mix...



Source: Company, Ambit Capital research; Note: Gas sourcing mix for the whole company instead of just priority segment and includes Unison from FY24E

Exhibit 92: ...however, margins are expected to be near historical average due to decline in overall gas costs



Source: Company, Ambit Capital research; Note: Includes Unison from FY24E

Valuation and outlook

EBITDA registered 16% CAGR over FY18-FY24E. We now forecast an annual decline of 3% in FY24-27E due to weak margins vs. FY24E. The company could incur capex of ₹8-9bn, mainly on account of deeper penetration, from internal cash generation with no need of borrowings. Dividend cover, which went below 100% in FY22-24E, to rise above 100% in FY25E-27E. MGL should sustain RoE/RoCE at 18%/23% over next three years, which is lower vs FY18-24 levels.

Exhibit 93: Summary of operational and financial metrics

Particular	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E	FY27E
Volumes (mmscmd)										
CNG	2.0	2.2	2.1	1.4	2.1	2.5	2.7	2.9	3.1	3.2
PNG - D	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6
PNG - C	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1
PNG - I	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4
Total	**2.7**	**2.9**	**3.0**	**2.2**	**3.0**	**3.4**	**3.7**	**4.0**	**4.2**	**4.4**
Per unit metrics (₹/scm)										
Revenue	22.6	25.9	27.5	26.7	32.5	50.4	46.0	45.3	45.3	45.8
COGS	10.4	13.0	12.8	9.3	18.7	35.5	26.9	29.1	28.8	29.7
Gross profit	12.2	12.9	14.7	17.4	13.8	14.9	19.1	16.2	16.5	16.1
Opex	4.3	4.7	5.0	5.8	5.4	5.4	5.5	5.5	5.5	5.5
EBITDA	**7.8**	**8.0**	**9.5**	**11.3**	**8.2**	**9.3**	**13.4**	**10.4**	**10.7**	**10.4**
Ratios										
DPS (₹)	19.0	20.0	35.0	23.0	25.0	26.0	40.0	36.0	36.0	37.0
RoCE (Pre-Tax) (%)	34%	34%	34%	25%	22%	25%	37%	25%	24%	20%
RoE (%)	24%	24%	30%	20%	17%	20%	29%	20%	19%	16%
Net debt/Equity (x)	(0.4)	(0.4)	(0.4)	(0.5)	(0.4)	(0.3)	(0.2)	(0.2)	(0.3)	(0.3)
Net debt/EBITDA (x)	(1.0)	(1.1)	(1.2)	(1.6)	(1.6)	(1.2)	(0.7)	(0.9)	(1.0)	(1.1)
Dividend Cover (%)	152%	140%	284%	138%	78%	60%	24%	113%	134%	173%

Source: Company, Ambit Capital research; Note: Includes Unison from FY24E

We have used DCF methodology to value MGL and Unison and assumed WACC and terminal growth rate of 11% and 1%. We have considered lower terminal rate vs GGas (5%)/IGL (3%) due to unattractiveness of GAs.

Exhibit 94: DCF valuation; 90% of value from standalone and the rest 10% from Unison

Particular	Amount (₹ mn)
Total PV of free cash flow (a)	76,647
PV of terminal value (b)	32,653
EV (a) + (b)	109,300
Net debt (FY25E)	(14,154)
Equity value	123,454
No. of shares (mn)	98.8
Implied share price (₹)	**1,250**

Source: Company, Ambit Capital research

MGL has completed Unison acquisition, which became a wholly owned subsidiary of the company with effect from 1st Feb-24.

- Unison's current volumes are around 0.13mmscmd (90% CNG) and it has 50 CNG stations. MGL remains confident of the volume potential of Unison and expects it to reach 1.2mmscmd.
- Capex is expected to be in the range of ₹1.0-1.5bn in the next 5 years.

Exhibit 95: Summary of Unison geographical areas with focus on existing infrastructure, MWP and penetration

Geographical area	Status as on 30th Sep-23				MWP		Households (2011)	Adjusted households (2024)	Penetration (%)
	CNG stations	PNG-D	PNG-C	PNG-I	CNG	PNG-D			
Ratnagiri District	20	11,135	8	45			397,115	225,977	5%
Chitradurga & Davanagere Districts	15	3,419	0	0	42	101,000	767,179	436,561	1%
Latur & Osmanabad Districts	17	2,013	1	0	30	9,999	832,853	473,932	0%
Total	**52**	**16,567**	**9**	**45**			**1,997,147**	**1,136,470**	**1%**

Source: PPAC, PNGRB, Census India, Ambit Capital research; Note: We have assumed a CAGR of 1% to calculate households in 2024 as census data is only available for 2011. Also, household data in 2024 has been adjusted for slum houses which won't receive PNG connections anytime soon.

Our assumptions:

- We have changed our previous assumption of volume growth and now build in 6% CAGR for FY24E-27E vs 4% previously. Also, we increase long-term volume growth to 4% vs. 3% earlier.
- We have changed our assumption related to margins and expect EBITDA/scm to average ₹10.5 during FY25E-27E vs ₹11.5 earlier. No changes after that.
- We value Unison at ₹122/share (about 10% of overall valuation), which implies a P/B of 2.7x FY26E. In our view, the company is expected to reach 1.2mmscmd in FY34E vs. management guidance of FY30E. Unison is expected to have RoCE of about 15%, which is lower than that of MGL's current business.
- All these lead to a 30% increase in target price.

Exhibit 96: Summary of changes in our estimates, valuations and target price

Particular (₹ mn)	New Estimates			Old Estimates			Change		
	FY25E	FY26E	FY27E	FY25E	FY26E	FY27E	FY25E	FY26E	FY27E
Rating	**SELL**			**SELL**			**UNCHANGED**		
Target Price (₹)	**1,250**			**960**			**30%**		
Net Sales	65,508	68,806	73,841	65,404	70,157	71,959	0%	-2%	3%
EBITDA	15,409	16,639	17,077	16,879	16,433	14,226	-9%	1%	20%
EBITDA (%)	23.5%	24.2%	23.1%	25.8%	23.4%	19.8%	-228bps	76bps	336bps
PBT	14,300	15,330	14,455	15,893	14,585	12,350	-10%	5%	17%
PAT	10,725	11,498	10,842	11,920	10,939	9,262	-10%	5%	17%
EPS (₹)	108.6	116.4	109.8	120.7	110.7	93.8	-10%	5%	17%

Source: Company, Ambit Capital research; Note: Financials include Unison.

Changing volume trajectory is a key factor for the valuation increase. We present below the sensitivity of MGL's valuations to margin and volume trajectory. A 1% CAGR change in volume over FY24E-40E with increasing network utilization is a major valuation driver and accounts for 12-15% swing in target valuation.

Exhibit 97: Target price sensitivity analysis based on volumes and margins

Volume CAGR/EBITDA (₹/scm)	8	9	10	11	12
2.0%	710	846	964	1,082	1,218
3.0%	848	988	1,128	1,278	1,418
4.0%	975	1,157	**1,250**	1,476	1,635
5.0%	1,108	1,273	1,455	1,638	1,803
6.0%	1,308	1,453	1,661	1,852	2,060

Source: Company, Ambit Capital research

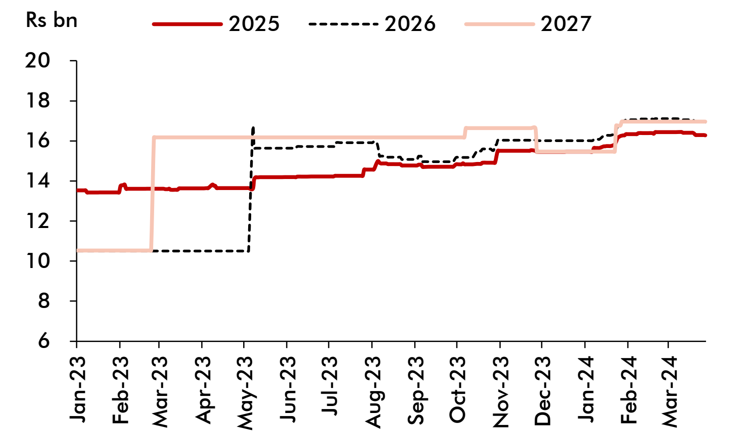
We have compared standalone financials' consensus estimates with ours. We are below consensus w.r.t. EPS for FY25E but higher for the next 2 years. We believe that consensus hasn't incorporated Unison financials yet.

Exhibit 98: Ambit vs. consensus

Particular (₹ mn)	Ambit	BBG	Divergence	VA	Divergence
Revenues					
FY25E	65,508	62,720	4%	65,783	0%
FY26E	68,806	66,304	4%	69,649	-1%
FY27E	73,841	66,769	11%	69,158	7%
EBITDA					
FY25E	15,409	16,399	-6%	16,633	-7%
FY26E	16,639	17,054	-2%	17,099	-3%
FY27E	17,077	16,964	1%	17,684	-3%
EPS (₹)					
FY25E	108.6	110.9	-2%	111.0	-2%
FY26E	116.4	114.4	2%	113.9	2%
FY27E	109.8	103.4	6%	117.2	-6%

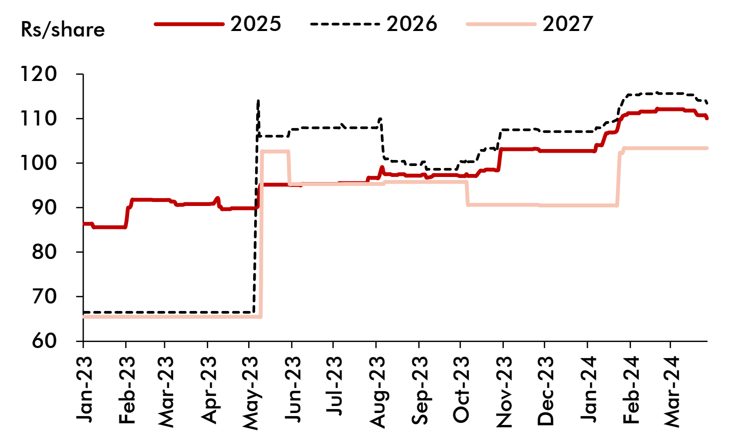
Source: Bloomberg, Visible Alpha, Company, Ambit Capital research

Exhibit 99: Upgrade in EBITDA estimates after implementation of KPC and each quarterly results…



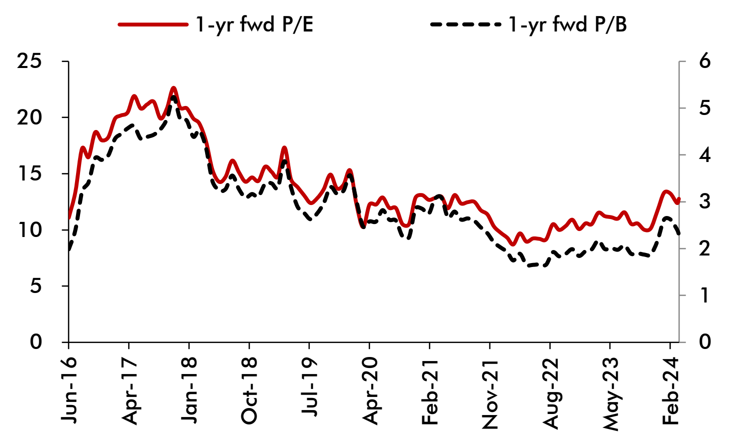
Source: Bloomberg, Ambit Capital research

Exhibit 100: …same is the case for EPS in the last one year; limited scope now



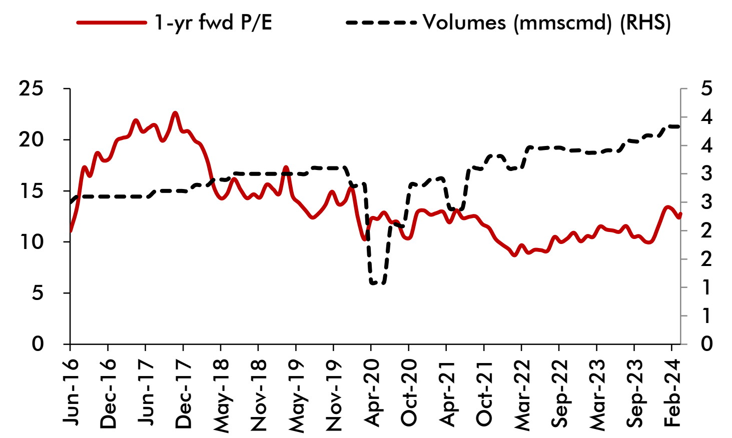
Source: Bloomberg, Ambit Capital research

Exhibit 101: MGL's multiples recovered from lows of last 3 years (Covid-19 and Russia-Ukraine war) and trade near the long-term average



Source: Bloomberg, Ambit Capital research

Exhibit 102: Multiples moving in tandem with volumes since 2022, which was not the case before



Source: Company, Bloomberg, Ambit Capital research

Catalysts & Risks

Catalysts to our SELL call

- **Lower volume growth:** Excluding Unison, we expect volume growth of 5% next one year vs management and consensus guidance of 6%. The growth rate is lower due to limited opportunities in Mumbai, difficulty in infrastructure expansion and expanding metro networks.
- **Stringent EV policy:** Maharashtra's first EV policy was released in Feb-18 and revised in Jul-21. There is a high probability that the government may come out with a new stringent policy due to the growing popularity of environment friendly fuels.
- **Slower expansion in Unison:** MGL may face issues for Unison either due to infrastructure constraints or/and consumer reluctance to shift to CNG/PNG.

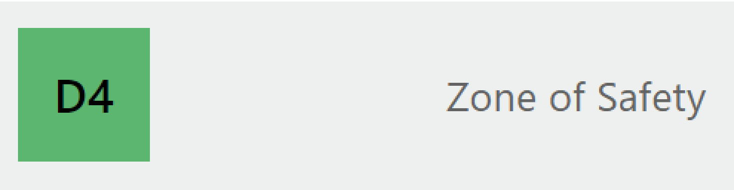
Risks to our SELL call

- **Higher volume growth:** Despite multiple challenges, MGL reported volume CAGR of 6% in FY18-24E. The company may grow faster than our estimates due to increasing popularity of natural gas as a fuel and infrastructure expansion in Raigad, Thane and Unison.
- **Stronger margins:** The Company reported exceptionally strong margins in 9MFY24 which is not sustainable. However, they can be above historical average due to benign gas prices.

Ambit HAWK

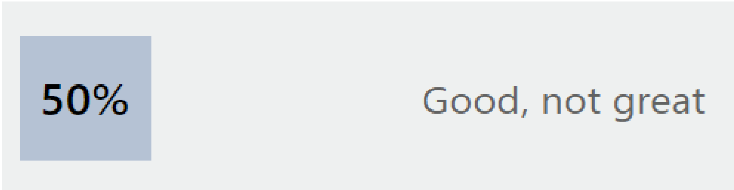
In 2023, MGL featured in D4 decile (Zone of Safety) on our accounting framework. This is huge improvement vs. last 2 years and driven by higher CFO/EBITDA, lower provisions and lower contingent liabilities. However, the company has experienced a decline in its greatness score from 75% (Zone of Greatness) in 2020 to 50% (Zone of "Good, not Great") in 2023. We expect further deterioration in score due to normalization in margin.

Exhibit 103: Forensic Accounting Decile



Source: Ambit HAWK, Company

Exhibit 104: Greatness Score

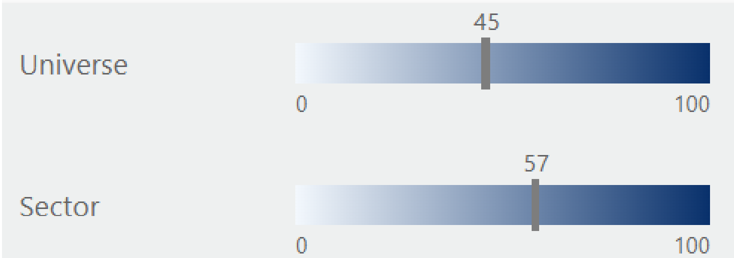


Source: Ambit HAWK, Company

Exhibit 105: Forensic Score Percentile

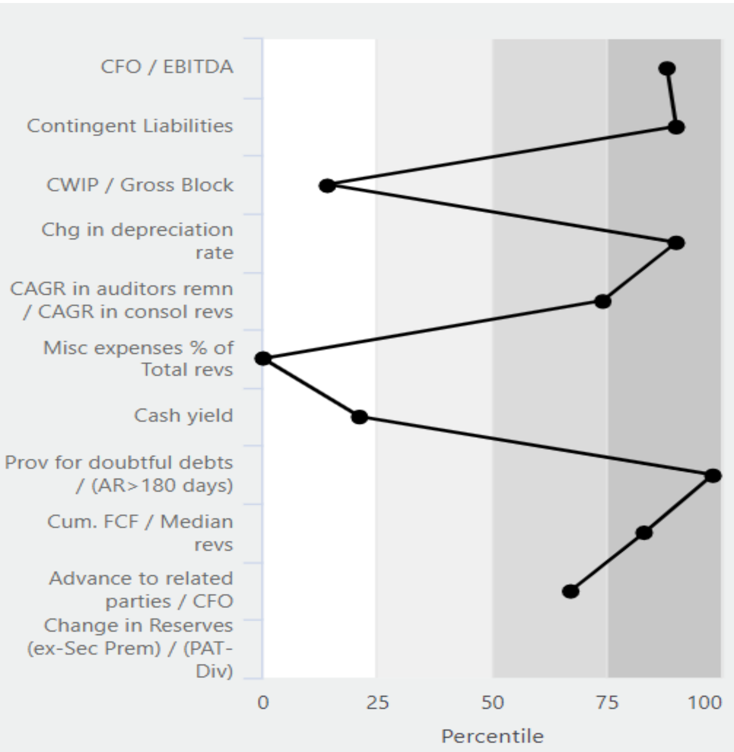
Source: Ambit HAWK, Company

Exhibit 106: Greatness Score Percentile



Source: Ambit HAWK, Company

Exhibit 107: Forensic Accounting Contributors

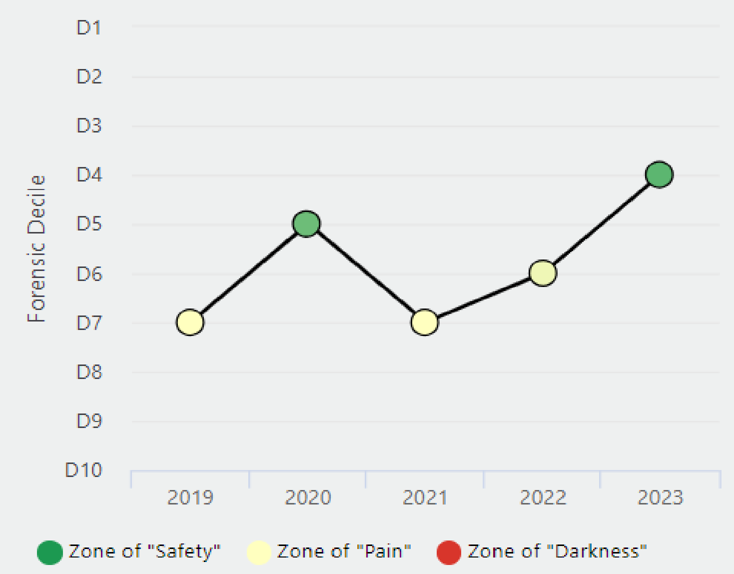


Source: Ambit HAWK, Company

Exhibit 108: Greatness Score Contributors

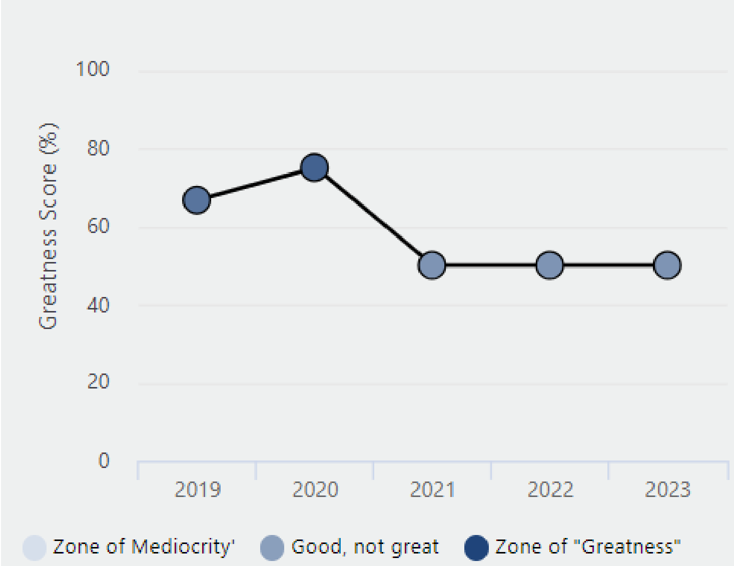
Source: Ambit HAWK, Company

Exhibit 109: Forensic Score - Evolution



Source: Ambit HAWK, Company

Exhibit 110: Greatness Score - Evolution



Source: Ambit HAWK, Company

Financials - Standalone

Income statement

Year to March (₹ mn)	FY22	FY23	FY24E	FY25E	FY26E	FY27E
Revenues	**35,602**	**62,993**	**62,933**	**65,508**	**68,806**	**73,841**
% growth	65.4%	76.9%	-0.1%	4.1%	5.0%	7.3%
Operating expenditure	26,359	51,151	44,291	50,099	52,167	56,764
EBITDA	**9,243**	**11,842**	**18,643**	**15,409**	**16,639**	**17,077**
% growth	-1.0%	28.1%	57.4%	-17.3%	8.0%	2.6%
Depreciation	1,963	2,311	2,644	2,800	3,000	3,400
EBIT	**7,281**	**9,531**	**15,999**	**12,609**	**13,639**	**13,677**
Interest expenditure	75	94	104	109	109	109
Non-operating income	857	1,119	1,788	1,800	1,800	887
Adjusted PBT	**8,063**	**10,555**	**17,683**	**14,300**	**15,330**	**14,455**
Tax	2,093	2,655	4,498	3,575	3,833	3,614
Adjusted PAT	**5,970**	**7,901**	**13,185**	**10,725**	**11,498**	**10,842**
Diluted EPS (₹)	60.4	80.0	133.5	108.6	116.4	109.8

Source: Ambit Capital research, Company

Balance sheet

Year to March (₹ mn)	FY22	FY23	FY24E	FY25E	FY26E	FY27E
Shareholders' equity	988	988	988	988	988	988
Reserves and surpluses	34,985	40,354	49,584	57,091	65,140	72,729
Total net worth	**35,973**	**41,342**	**50,571**	**58,079**	**66,128**	**73,717**
Debt	1,030	1,146	1,146	1,146	1,146	1,146
Deferred tax liability	2,008	2,086	2,086	2,086	2,086	2,086
Consumer deposits	12,971	14,251	9,345	9,769	10,311	11,138
Total liabilities	**51,982**	**58,825**	**63,149**	**71,080**	**79,670**	**88,087**
Net block	26,137	30,257	36,363	42,313	48,063	52,913
CWIP	6,159	7,086	7,086	7,086	7,086	7,086
Investments (non-current)	10,883	13,098	13,098	13,098	13,098	13,098
Debtors	1,840	2,940	3,104	3,231	3,393	3,641
Inventory	275	338	517	538	566	607
Loans & advances	2,391	4,324	3,949	4,109	4,314	4,630
Total current assets	**4,507**	**7,603**	**7,570**	**7,878**	**8,273**	**8,879**
Provisions	356	498	498	498	498	498
Total current liabilities	**356**	**498**	**498**	**498**	**498**	**498**
Net current assets (ex-cash)	**4,151**	**7,105**	**7,072**	**7,380**	**7,775**	**8,381**
Cash & cash equivalents	4,652	2,279	529	2,202	4,648	7,609
Total assets	**51,982**	**58,825**	**63,149**	**71,080**	**79,670**	**88,087**

Source: Ambit Capital research, Company

Cash flow statement

Year to March (₹ mn)	FY22	FY23	FY24E	FY25E	FY26E	FY27E
Net profit before tax	8,063	10,555	17,683	14,300	15,330	14,455
Depreciation	1,963	2,311	2,644	2,800	3,000	3,400
Tax	(2,093)	(2,655)	(4,498)	(3,575)	(3,833)	(3,614)
(Incr)/decr in net working capital	(1,105)	(2,955)	33	(308)	(395)	(606)
Others	2,209	2,436	(6,590)	(1,268)	(1,149)	49
Cash flow from operations	**9,037**	**9,693**	**9,272**	**11,949**	**12,954**	**13,685**
Capex (net)	(6,473)	(7,127)	(8,750)	(8,750)	(8,750)	(8,250)
(Incr)/decr in investments	(633)	(2,215)	-	-	-	-
Others	1,716	2,851	1,788	1,800	1,800	887
Cash flow from investments	**(5,390)**	**(6,491)**	**(6,962)**	**(6,950)**	**(6,950)**	**(7,363)**
Issue of equity	(1)	12	(0)	0	0	0
Net borrowings	289	116	-	-	-	-
Interest paid	(75)	(94)	(104)	(109)	(109)	(109)
Dividend paid	(2,321)	(2,520)	(3,955)	(3,218)	(3,449)	(3,252)
Cash flow from financing	**(2,109)**	**(2,486)**	**(4,060)**	**(3,326)**	**(3,558)**	**(3,361)**
Net change in cash	1,537	716	(1,750)	1,673	2,446	2,961
Cash Profit/(Loss)	**2,564**	**2,566**	**522**	**3,199**	**4,204**	**5,435**

Source: Ambit Capital research, Company

Ratio analysis

Year to March	FY22	FY23	FY24E	FY25E	FY26E	FY27E
EBITDA margin (%)	26.0%	18.8%	29.6%	23.5%	24.2%	23.1%
Net prof. margin (%)	16.8%	12.5%	21.0%	16.4%	16.7%	14.7%
Dividend payout ratio (%)	39%	32%	30%	30%	30%	30%
Net debt: equity (x)	(0.1)	(0.0)	0.0	(0.0)	(0.1)	(0.1)
Average Working capital days	36.9	32.6	41.1	40.3	40.2	39.9
Gross block turnover (x)	1.0	1.5	1.2	1.1	1.0	1.0
RoCE (pre-tax) (%)	22.0%	25.5%	36.5%	25.5%	24.0%	20.2%
RoE (%)	17.5%	20.4%	28.7%	19.7%	18.5%	15.5%
Book value per share (₹)	364.2	418.5	512.0	588.0	669.5	746.3
P/E (x)	23.9	18.1	10.8	13.3	12.4	13.2
P/BV (x)	4.0	3.5	2.8	2.5	2.2	1.9
EV/EBITDA (x)	17.0	13.2	8.4	10.2	9.4	9.2
EV/EBIT (x)	21.5	16.5	9.8	12.4	11.5	11.5

Source: Ambit Capital research, Company

Indraprastha Gas (IGL IN, SELL)

Valuation Methodology

We have used SoTP valuation methodology to value IGL. DCF methodology to value IGL's standalone business; assumed WACC and terminal growth rate of 11% and 3%. P/E multiple to value IGL's 50% stake in Central UP Gas Limited (CUGL) and Maharashtra Natural Gas Limited (MNGL). Our target valuation of 17x FY26E P/E is 10% lower vs. last 10-yr average.

Risks

1) Slower than expected adoption of EVs by aggregators in NCT, 2) Benign gas prices and higher APM allocation, 3) Faster penetration in new geographical areas and new vehicle categories, 4) Conversion of buses on CNG in Rajasthan, Haryana, UP and Uttarakhand as well as dumpers in Chitrakoot and 5) Favourable ruling in case of Gurugram

Mahanagar Gas (MAHGL IN, SELL)

Valuation Methodology

We have used DCF methodology to value MGL and Unison and assumed WACC and terminal growth rate of 11% and 1%. Our target valuation of 11x FY26E P/E is 20% lower vs. last 7-yr average.

Risks

1) Faster volume growth in both existing and Unison's GA, 2) High pricing power allows to manage uncertainties better vs. other CGDs and 3) Benign gas prices and increase in APM allocation

Gujarat Gas (GUJGA IN, BUY)

Valuation Methodology

We value Gujarat Gas using the DCF valuation methodology and arrive at our target price of ₹650 taking into consideration free cash flows till FY40E with terminal growth rate of 5% and WACC of 11%. We value company at 25x FY26E P/E which is at 28% premium to last 10-yr average.

Risks

1) Lower volume growth as industrial customers becomes reluctant to shift to LNG because of limited benefits and uncertainties, 2) Difficulty in infrastructure expansion in new GAs, 3) Stringent EV policy, 4) Pressure on margins due to high gas prices and lower APM allocation.

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Indraprastha Gas
SELL

CHANGE IN STANCE	IGL IN EQUITY	May 02, 2024

Losing earnings momentum

Like other CGDs, IGL's volume growth was hit by higher gas prices. Specific issues related to National Capital Territory (NCT) adversely impacted it in 9MFY24 too. New GAs and deeper penetration in NCT should drive volume growth albeit at a lower rate. We expect volume CAGR of 7%/5% in FY24-27E/FY24-40E. EBITDA/scm would be near long-term average after record FY24E due to APM deallocation and limited pricing power. This would lead to EPS CAGR of only 3% in FY24-30E vs. 17% in the past 10 years. We turn SELLers on NCT woes and margin pressure despite expansion in new areas. Moderation in volume growth by 2ppt drives 17% TP cut. Valuation of 17x FY26E P/E is at 10% discount on minuscule earnings growth and capital misallocation risks.

Competitive position: MODERATE   Changes to this position: STABLE

No longer a volume growth leader

IGL registered the highest volume CAGR of 8% in FY18-24E mainly due to expansion in NCT. Growth is expected to moderate in NCT amid growing popularity and policies related to EVs. This won't be offset by expansion in new GAs as well as deeper penetration in other segments. We expect overall volume CAGR of 7% in FY24E-27E and further slowdown to 6% in FY27-30E.

Margins won't lead to incremental profitability

Covid impacted volumes but margins got a boost in FY21-22; scenario was similar in FY24E. APM deallocation and limited pricing power would put pressure on margins. However, normalization in gas prices, especially international gas, would allow IGL to maintain margins largely near historical levels but with no contribution to incremental earnings.

Capital allocation remains unclear

IGL was able to reinvest 60% of CFO over FY18-24E; reinvestment rate is expected to be about 40% in FY25-27E. IGL has negative net debt and its cash balance (9% of Mcap) is highest among listed CGDs. Yet it paid out only 33% of FY19-23 earnings though payout was 63% in FY23. Cash, above 100% dividend cover and limited growth opportunities pose capital misallocation risks. IGL has discussed investments in EV infrastructure and green hydrogen, which we view as unrelated, low-return diversification vs its existing franchise.

Weak return profile to keep valuations suppressed

Valuations were under pressure for the last 2 years but recovered recently due to expectations of volume growth revival. Current 1-yr fwd P/E of 16x is at 18% discount to decadal average. Lower volume growth and margin normalization would keep earnings growth moderate, leading to RoCE dilution (17% in FY27E vs 23% in FY24E). This coupled with capital risks would keep multiples depressed.

Key Financials

Year to March (₹ bn)	FY23	FY24E	FY25E	FY26E	FY27E
Revenue	141	141	149	160	166
EBITDA	20	25	24	24	27
PAT	14	18	17	17	19
EPS (₹)	20.6	25.4	24.2	24.0	26.6
Pre-Tax RoCE (%)	20.4	22.9	19.2	16.9	17.0
P/E (x)	22.7	18.5	19.4	19.5	17.6
EV/EBITDA (x)	14.6	12.1	12.4	12.4	11.1

Source: Company, Ambit Capital research

Oil & Gas

Recommendation

Mcap (bn):	₹328/US$3.9
6M ADV (mn):	₹1,227/US$14.8
CMP:	₹469
TP (12 Mths):	₹400
Downside (%):	(15)

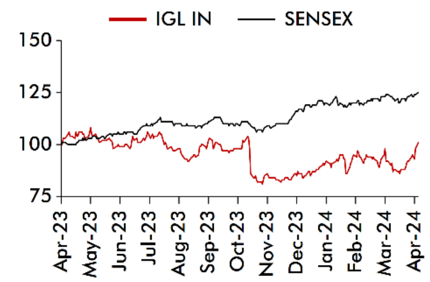
Flags

Accounting:	GREEN
Predictability:	AMBER
Earnings Momentum:	RED

Catalysts

- EBITDA/scm of ₹7.3 in FY25E vs ₹8 in FY24E.
- Pre-tax RoCE of 19% in FY25E vs 21% in FY22-24E.

Performance



Source: ICE, Ambit Capital Research

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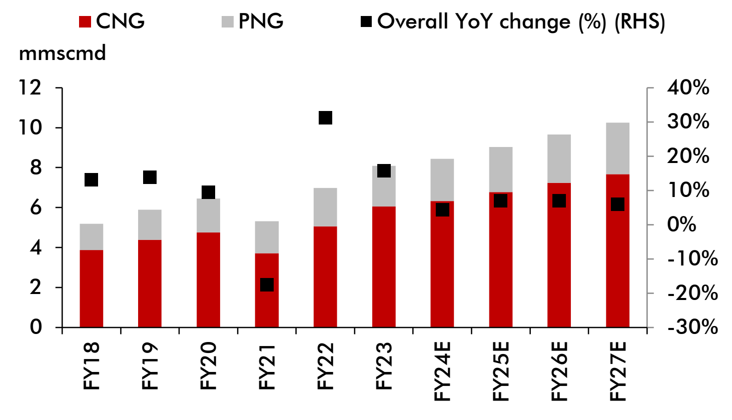
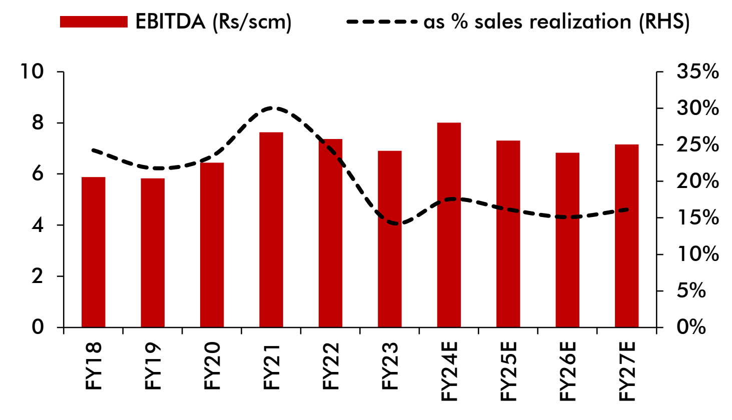
The Narrative in Charts

Exhibit 1: IGL volumes trajectory to dip vs historic trends



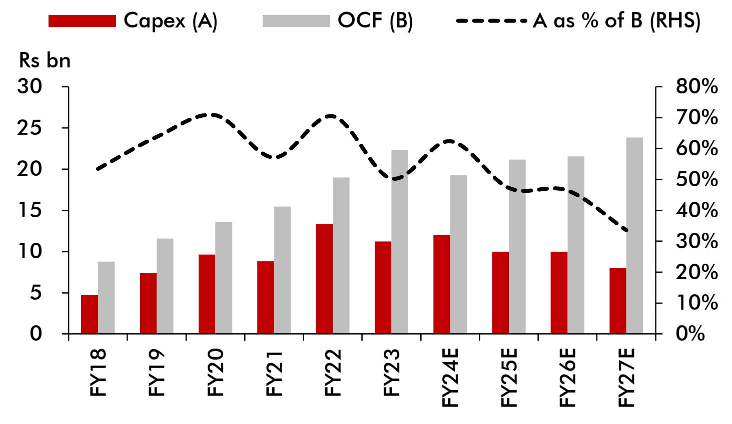
Source: Company, Ambit Capital research

Exhibit 2: Margins to mean revert after record FY24E



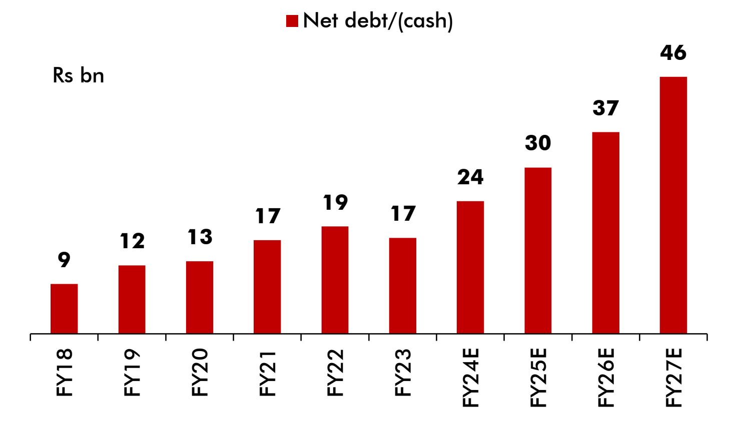
Source: Company, Ambit Capital research

Exhibit 3: IGL capex continues to be lower vs OCF…



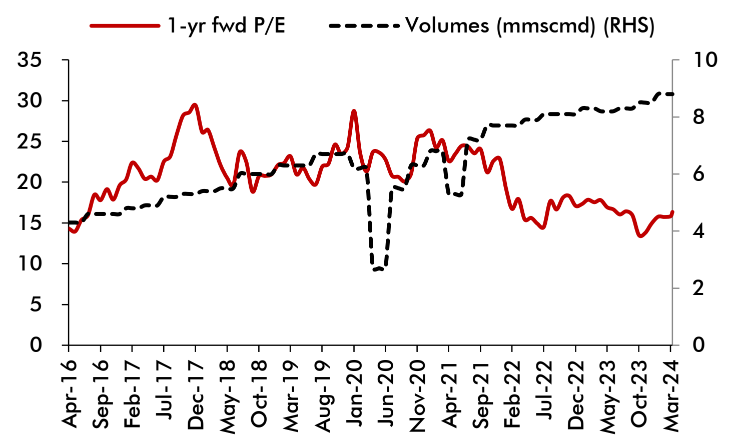
Source: Company, Ambit Capital research

Exhibit 4: …this and high cash balance raise capital risk



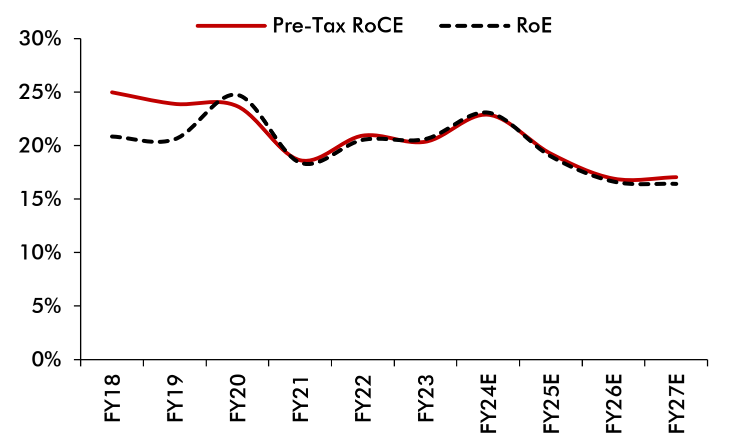
Source: Company, Ambit Capital research; Note: We assume 30% FY24-27E dividend payout

Exhibit 5: Multiples recovered in recent months but largely under pressure since 2021 due to moderate volume growth…



Source: Company, Bloomberg, Ambit Capital research

Exhibit 6: …limited upside now due to weak return profile amid miniscule earnings growth



Source: Company, Ambit Capital research

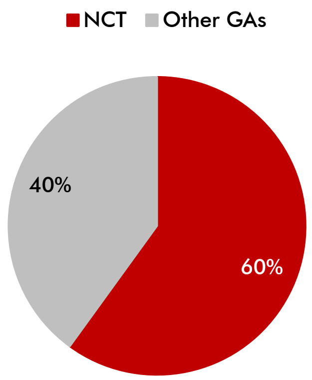
Volume growth to moderate

IGL started its operations in NCT in 1999 with only 9 CNG stations and 1,000 PNG consumers. However, it grew rapidly in the last 10 years and achieved volume CAGR of 9% in FY13-24E. Covid impacted the whole CGD industry while issues specific to NCT (flooding, new EV policy, and conversion of DTC buses into EVs) adversely impacted IGL during 9MFY24 too. To overcome the threat of EVs and maturity of NCT, IGL has increased its focus on other GAs. Despite this, we expect moderation in growth rate due to low single digit growth opportunities in NCT as well as low attractiveness of other areas after 3 years. Considering all these, we expect an overall volume CAGR of 7% in FY24E-27E; CNG/PNG-I to grow at the same rate of 7%. Growth is expected to moderate mainly due to EVs, and we expect CAGR of 6% in FY27-30E.

IGL has been diversifying its CNG portfolio

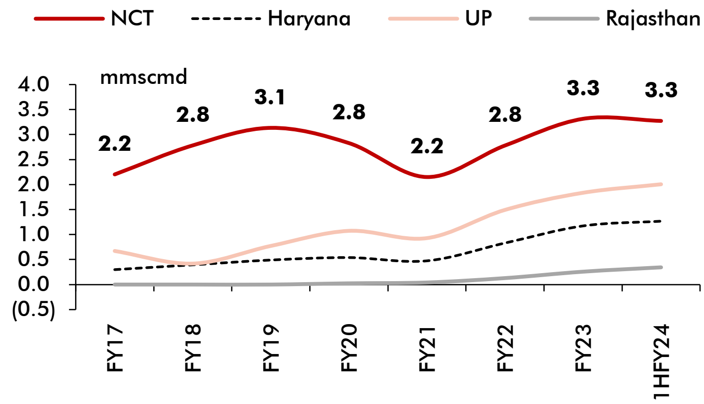
About 60% of IGL's CNG volumes come from NCT and the remainder 40% from other GAs. The growth in NCT is 2-3% and other GAs in the range of 5-50%; Gurugram is around 5% and Gautam Buddha and Ghaziabad are at ~12%.

Exhibit 7: Break-up of current (3QFY24) CNG volumes of 6.2mmscmd based on GAs



Source: Company, Ambit Capital research

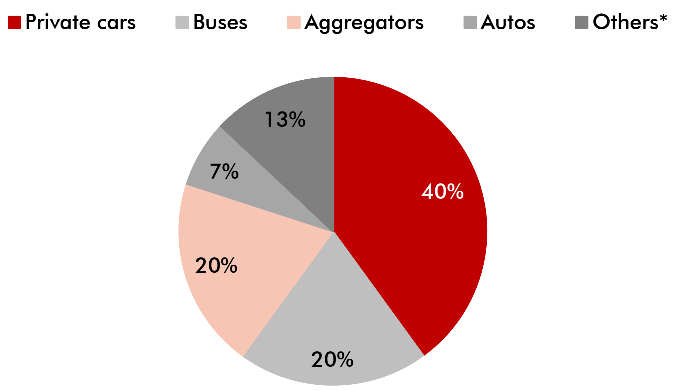
Exhibit 8: CNG volumes were largely stagnant in NCT in the last 5 years while other areas saw consistent growth



Source: PPAC, Ambit Capital research; Note: Volumes in Haryana, UP, and Rajasthan doesn't represent whole states and doesn't belongs to IGL only

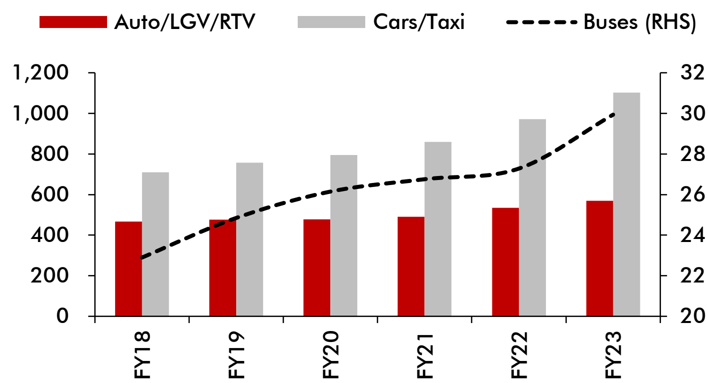
IGL has started its operations in Delhi for buses but diversified its portfolio across multiple vehicle categories. Growth continues despite challenges because of EVs, Covid-19, and alternative fuels. In our view, this highlights superiority of CNG as well as execution skills of management.

Exhibit 9: Current CNG volumes of 6.2mmscmd - break-up based on vehicle categories



Source: Company, Ambit Capital research; Note: Others include commercial vehicles

Exhibit 10: Consistent increase in vehicle additions for all categories in the last 5 years



Source: Company, Ambit Capital research; Note: Numbers are in thousands

EV risks in NCT in the medium to long term

The Delhi government has announced [Delhi Motor Vehicle Aggregator and Delivery Service Provider Scheme, 2023]. The scheme has set timelines for fleet aggregators as well as delivery service providers to ensure a phased conversion to electric mobility by 2030.

For fleet aggregators and delivery service providers, 10% of three-wheelers and 5% of four-wheelers in a new fleet must be EVs within first six months of notification of the scheme. All three-wheelers must be electrified within four years and all four-wheelers within five years (i.e., April 1, 2030).

- About 30% of IGL's CNG volumes (1.9 mmscmd) are at risk due to transition of aggregators, buses, and autos to EVs in NCT. We expect this transition will happen by FY30 due to strict enforcement.
- 1,200 DTC CNG buses have been converted to EVs while the remainder 1,800 will be by FY25E. There is no immediate threat to 3,300 DIMTC buses which will be converted only gradually.
- Unlike the rest of the country where CNG dominates trucks and mini trucks, in Delhi EVs are becoming popular for buses and 3Ws. In the case of 4Ws, Delhi is largely similar to the nation's average.

Exhibit 11: Trend of vehicle sales in NCT based on fuel types and vehicle categories; CNG dominates all vehicle categories in NCT unlike the national average

Particular	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	9MFY24
Trucks										
CNG ONLY	2%	2%	37%	66%	87%	89%	96%	99%	94%	92%
DIESEL	97%	98%	63%	34%	13%	11%	4%	1%	6%	8%
Mini Trucks										
CNG ONLY	49%	52%	81%	91%	95%	97%	98%	99%	98%	95%
DIESEL	16%	22%	14%	8%	4%	3%	2%	1%	2%	2%
Buses										
CNG ONLY	86%	89%	98%	99%	100%	100%	100%	83%	57%	24%
DIESEL	14%	11%	2%	1%	0%	0%	0%	5%	0%	1%
ELECTRIC(BOV)	0%	0%	0%	0%	0%	0%	0%	12%	43%	74%
3W										
CNG ONLY	23%	10%	0%	0%	0%	1%	28%	26%	27%	20%
ELECTRIC(BOV)	0%	31%	59%	54%	66%	74%	71%	74%	73%	80%
PETROL/CNG	77%	59%	40%	46%	34%	25%	1%	0%	0%	0%
4W (PV)										
DIESEL	35%	23%	17%	21%	19%	15%	7%	9%	8%	6%
ELECTRIC(BOV)	0%	0%	0%	0%	0%	1%	1%	2%	4%	4%
PETROL	45%	51%	50%	55%	54%	58%	70%	67%	62%	59%
PETROL/CNG	20%	25%	28%	20%	23%	21%	18%	18%	17%	20%

Source: Vahan, Ambit Capital research; Note: We present only major fuel types for a particular vehicle category

The trend is clearly visible in the first 4 categories. PVs present huge opportunities for both CNG and EVs to grow as they are still dominated by petrol and diesel (about 75% share).

Exhibit 12: Penetration based on fuel type across different vehicle categories in NCT; CNG has huge potential to grow only in PV as it already dominates other categories

Particular	Trucks	Mini Trucks	Buses	3W	4W (PV)
CNG ONLY	76%	88%	77%	11%	0%
DIESEL	24%	6%	3%	0%	16%
DIESEL/HYBRID	0%	0%	0%	0%	1%
ELECTRIC(BOV)	0%	0%	20%	61%	1%
PETROL	0%	0%	0%	0%	56%
PETROL/CNG	0%	5%	0%	28%	21%
PETROL/HYBRID	0%	0%	0%	0%	4%

Source: Vahan, Ambit Capital research; Note: We have considered data from FY15 to 9MFY24 to calculate penetration. We present only major fuel types for a particular vehicle category

New geographical areas to add volumes

Apart from NCT, IGL has authorization for 9 other GAs. The company has started CNG sales in all areas. PNG sales have also started except in Banda, Chitrakoot and Mahoba, areas won in the 11th bidding round.

- In other GAs, CNG has much more scope to grow as petrol and diesel still dominate all vehicle categories except 3W.
- The company is focusing on interstate bus transport. UP, Uttarakhand and Rajasthan have agreed to deploy 60, 45 and 20 buses on CNG.
- Approximately 3,000 dumpers are operational in Banda, Chitrakoot and Mahoba, which can offset loss of DTC volumes.
- PNG-D penetration is about 60% in NCT and sharply lower in most other areas.

Exhibit 13: Summary of IGL's GAs with focus on existing infrastructure, MWP and PNG-D penetration; growth potential in new areas as well as old

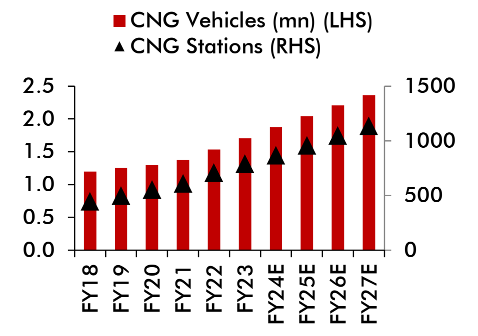
Geographical area	Status as on 30th Sep-23				MWP		Households (2011)	Adjusted households (2024)	Penetration (%)
	CNG stations	PNG-D	PNG-C	PNG-I	CNG	PNG-D			
Rewari	34	16,909	64	168			178,043	81,052	21%
Karnal	22	17,665	18	54			292,084	132,968	13%
NCT of Delhi	481	1,473,969	3,726	1,846			3,533,181	2,412,654	61%
Ghaziabad	67	323,145	466	6,006			850,676	580,889	56%
Noida (including Greater Noida)	58	343,749	933	1,443			327,090	372,259	92%
Gurugram*	21	20,447	118	53			326,428	148,602	14%
Meerut, Muzzaffarnagar & Shamli	28	34,343	33	4	36	105,543	1,369,056	623,245	6%
Kaithal	12	27,620	0	1	27	99,144	204,274	116,241	24%
Ajmer , Pali and Rajsamand	56	148,304	4	0	198	1,000,944	1,156,067	1,315,712	11%
Kanpur, Fatehpur and Hamirpur	21	30,808	2	2	45	144,000	1,540,439	701,265	4%
Banda , Chitrakoot and Mahoba	2				102	150,006	646,630	294,370	0%
Total	**802**	**2,436,959**	**5,364**	**9,577**	**408**	**1,499,637**	**10,423,968**	**6,779,258**	**36%**

*Source: PPAC, PNGRB, Census India, Ambit Capital research; Note: We have assumed a CAGR of 1% to calculate households in 2024 as census data is only available for 2011. Also, household data in 2024 has been adjusted for slum houses which won't receive PNG connections anytime soon. * stands for under examination for authorization and whole Gurugram doesn't belongs to IGL as some of the area has been already allocated to Haryana City Gas.*

- IGL added around 85 CNG stations annually in FY22-24E and about 13,100/14,140/14,200 vehicles per month in FY22/FY23/FY24E. Growth was superior vs FY19-21 when the company added 5k vehicles per month and 55 CNG stations on an annual basis. We expect IGL to add 13,500 vehicles per month in FY25-27E and about 90 CNG stations per year mainly due to expansion in new GAs.
- The company has been aggressively adding households as well as industrial and commercial customers. Despite Covid-19, IGL added 1 million new households in FY21-23; about 42% of the total at the end of FY23. Also, it added 3,455 industrial and commercial customers during the same period which represents 38% of the total. We expect aggressive network addition to continue and likely increase in PNG customers.

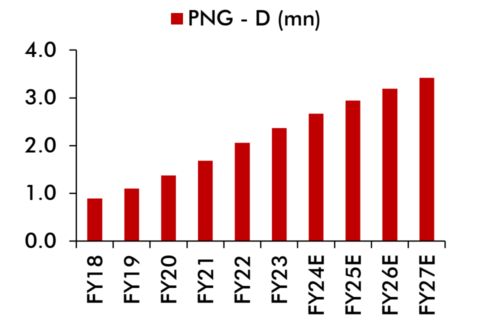
CNG vehicle conversion per month was 15,000 in 3QFY24 vs 15,900, 14,100, and 14,000 in 2QFY24, 1QFY24, and 4QFY23.

Exhibit 14: CNG vehicles to reach 2.4mn in FY27E and stations above 1,100



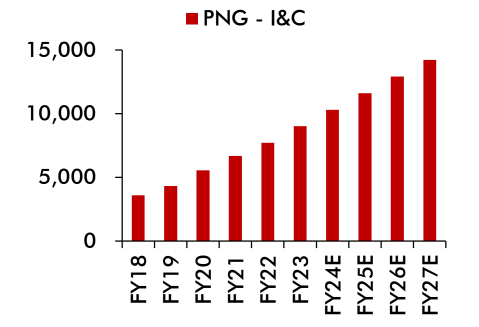
Source: Company, Ambit Capital research

Exhibit 15: We expect 9% CAGR in PNG-D in FY24-27E - addition of 0.8 mn



Source: Company, Ambit Capital research

Exhibit 16: 11% CAGR in FY24-27E; annual addition of about 1,300



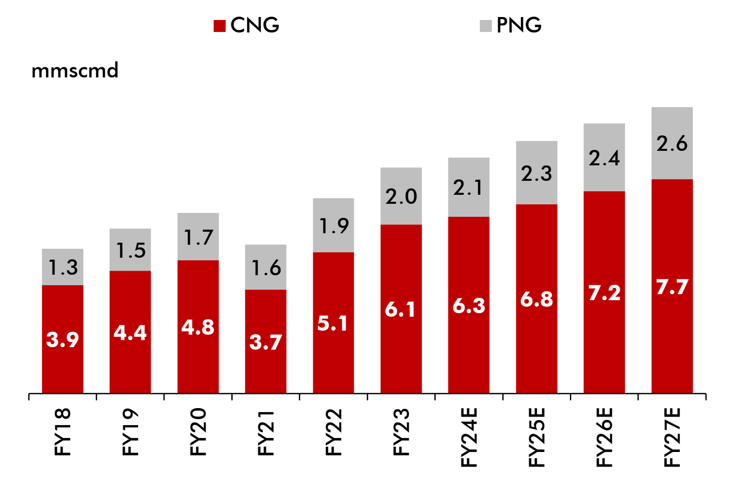
Source: Company, Ambit Capital research

Tough to maintain past growth trajectory

Management maintains its 4QFY24 exit volume guidance of 9mmscmd and 10mmscmd for FY25E. The company is unsure about implications of Delhi's EV policy. However, it expects volume growth to be below previous guidance of 10% in the next 3-5 years.

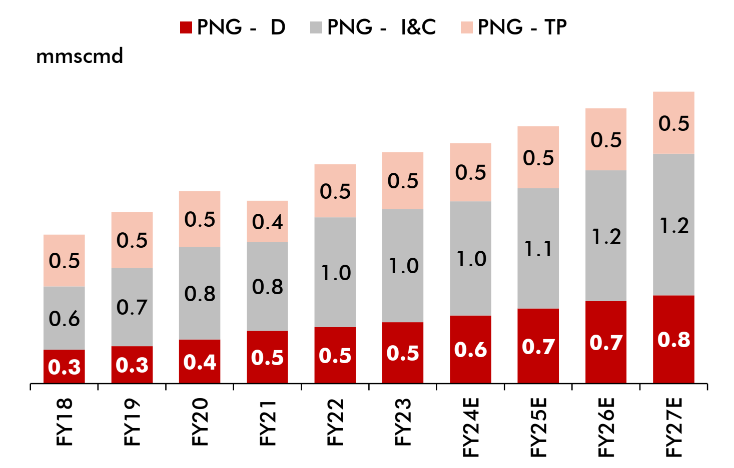
- We expect IGL's growth in both CNG and PNG to continue in NCT as well as other GAs albeit major contribution would be from new areas of Haryana, UP and Rajasthan. Overall volume is expected to grow at a CAGR of 7% in FY24-27E vs 8% in FY18-24E.
- Growth is expected to moderate due to the impact of EVs, especially in NCT, as well as drying up of opportunities in other areas. We don't see a decline in NCT due to PVs and trucks as well as increasing consumption.

Exhibit 17: CNG volumes are expected to grow at a CAGR of 7% in FY24-27E vs 9% in FY18-24E



Source: Company, Ambit Capital research

Exhibit 18: In the case of PNG, CAGR is expected to be 7% vs 8% in the past



Source: Company, Ambit Capital research

Premium margins are behind

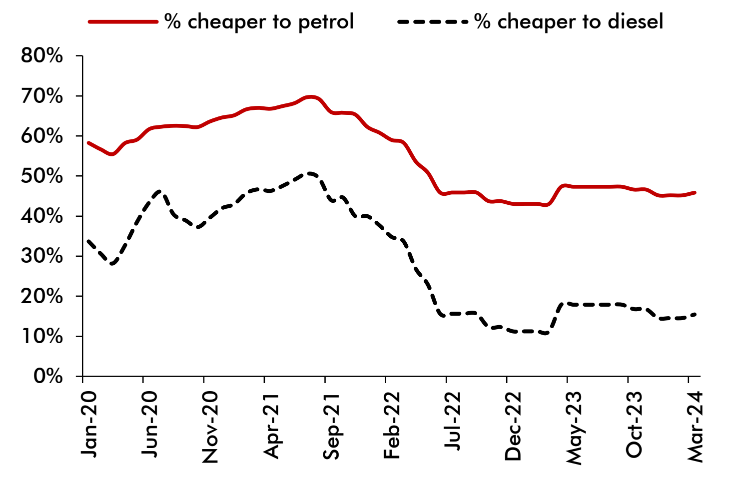
Margins got a boost in FY21-22 due to lower gas prices during Covid. IGL managed the most challenging times in its history with a change in APM pricing methodology and expects to report highest-ever margin in FY24E. But APM deallocation and limited attractiveness vs alternative fuels would pressure margins hereon. At the same time, normalization in gas prices, contracted volumes and favourable government policies would be a saviour. Gas pipeline rollout in new GAs will enable IGL to deliver CNG to consumers in a cost effective manner instead of the current system of delivering it via gas cascades. We expect EBITDA/scm to be around ₹7.1 in FY25-27E and marginally below ₹7 afterwards.

Limited pricing power...

Due to issues between Russia and Europe, gas prices increased across the globe. To manage high gas costs, IGL increased CNG and PNG prices multiple times during the last 2 years. However, alternative fuel prices decreased during the same period due to reduction in excise duties. Absolute difference between CNG vs petrol/diesel prices in Delhi is about ₹21/₹14, and CNG is 46%/15% more economical.

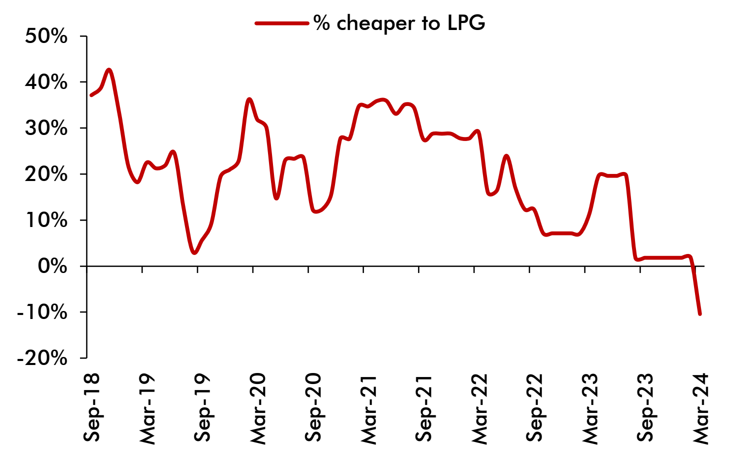
- We believe IGL has only limited optionality now to increase prices as low attractiveness vs alternative fuels would impact volume growth.
- IGL doesn't have pricing power vs LPG. In our view, this is not worrisome because OMCs are also operating at very thin LPG margins with less scope to reduce prices further.

Exhibit 19: CNG attractiveness vs petrol/diesel; very limited scope to increase CNG prices



Source: IGL, Bloomberg, Ambit Capital research; Note: Monthly retail prices in Delhi have been considered, Comparison of CNG vs alternative fuels is based on price and mileage (CNG LCV - 10 km/kg, Diesel LCV – 10 km/ltr and CNG Car – 26 km/kg, Petrol car - 18 km/ltr)

Exhibit 20: PNG-D attractiveness vs LPG-D; no scope for increasing PNG prices as it is already costlier vs LPG



Source: IGL, Bloomberg, Ambit Capital research; Note: Data is for Delhi

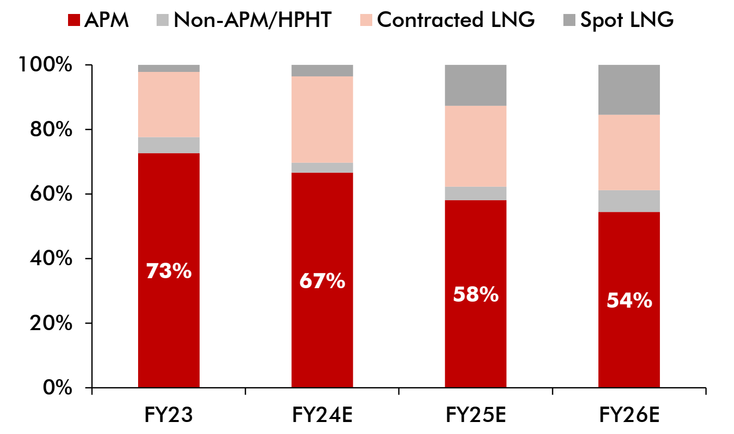
...and APM deallocation is a bigger challenge

IGL consistently reported margin expansion over FY17-21 when EBITDA/scm increased from ₹5.8 to ₹7.6. Despite the most challenging time in its history, FY22-23, IGL maintained margins of ₹7.1. With normalization in the gas market and introduction of new APM formula, margins increased to ₹8.1 in 9MFY24. We expect EBITDA/scm to be around ₹7.1 in FY25E-27E and marginally below ₹7 afterwards.

- The biggest challenge for margin is decreasing allocation of APM gas. APM used to meet 100% of priority sector demand until FY21. But it reduced to about 78% in 3QFY24. We expect APM to meet only 64% of demand in 4QFY26E and gradually reduce after that.
- We don't see sharp deterioration in margins due to normalization in global and domestic gas markets, priority in HPHT gas, and contracted volumes of about 1.8mmscmd consisting of HPHT and LNG.

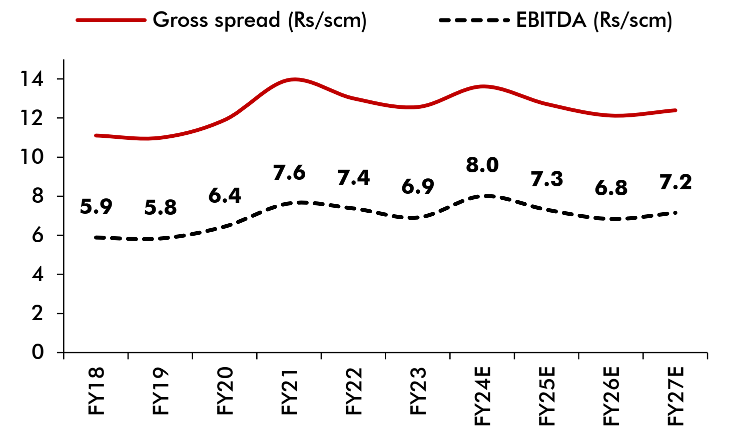
- The company is also planning to use CBG (0.2mmscmd from its plants and 0.2mmscmd from third parties). IGL has already commissioned 5 CBG plants and plans to add 10 soon.

Exhibit 21: Share of LNG is expected to increase in the overall gas sourcing mix…



Source: Company, Ambit Capital research; Note: Gas sourcing mix for the whole company instead of just priority segment

Exhibit 22: …which would bring margin back to historical level after record FY24E



Source: Company, Ambit Capital research

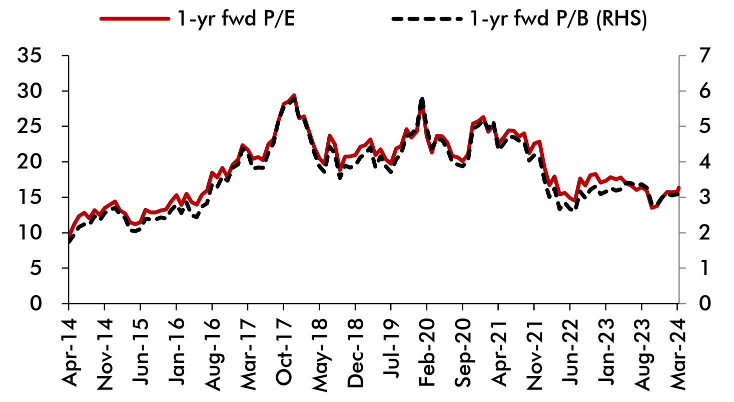
Poor earnings momentum to keep valuation suppressed

Covid-induced volume uncertainty, unprecedented high gas prices, and regulatory curbs de-rated IGL to 14.9x 1-yr forward P/E in Dec-23, a 20% discount to 10-yr average. With normalization in gas prices and expectations of resumption of volume growth, multiples recovered in recent days. We assume 2% EPS CAGR over FY24E-27E vs 18% in FY18-24E as growth in volume would be largely offset by lower margin. Earnings trajectory is expected to improve after FY27E and IGL would register 5% CAGR in FY27E-30E, still far below historical standards. Due to moderate earnings growth, we turn SELLers. We are 11%/17% below consensus for FY25E/FY26E given pressure on margins. Our target valuation of 17x FY26E P/E is at a 10% discount vs last 10-yr average considering NCT woes and pressure on margins.

Valuations under pressure for the last 2 years...

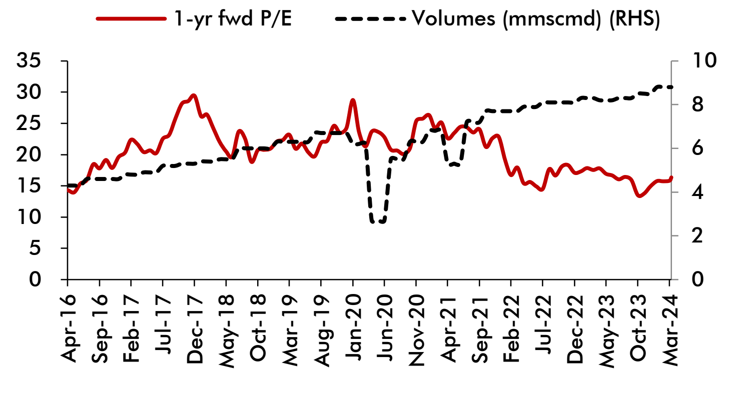
Due to high prices of both domestic and international gas, operations across all segments were under pressure and kept valuations suppressed since the Russia-Ukraine war. This further intensified in 9MFY24 due to lower volume growth amid flooding in NCT as well as implementation of new EV policy. 1-yr fwd P/E and 1-yr fwd P/B were 22.9x/4.1x in Dec-21 and it reduced to 17.5x/3.2x in Mar-23. After that volume uncertainties drove a de-rating and multiples reduced to 14.9x/3x in Dec-23.

Exhibit 23: Multiples trading below long-term average with a marginal recovery in the last 3 months due to volume growth revival expectations



Source: Bloomberg, Ambit Capital research

Exhibit 24: Multiples under pressure since 2021 due to moderate volume growth; need to resume volume growth for higher multiples



Source: Company, Bloomberg, Ambit Capital research

...and expected to remain the same

EBITDA posted 14% CAGR over FY18-24E, and we expect CAGR of only 3% in FY24-27E. The company could incur capex of ₹10bn, mainly on account of deeper penetration in old areas and expansion in new, from internal cash generation with no need of borrowings. Dividend cover to be above 100% in FY25-27E which was below 100% in FY19-23. IGL should sustain RoE/RoCE at 17%/18% over the next three years, which is lower than FY18-24E levels.

Exhibit 25: Summary of important operational and financial metrics

Particular	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E	FY27E
Volumes (mmscmd)										
CNG	3.9	4.4	4.8	3.7	5.1	6.1	6.3	6.8	7.2	7.7
PNG - D	0.3	0.3	0.4	0.5	0.5	0.5	0.6	0.7	0.7	0.8
PNG - I&C	0.6	0.7	0.8	0.8	1.0	1.0	1.0	1.1	1.2	1.2
PNG - Third Party	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5
Total	**5.2**	**5.9**	**6.5**	**5.3**	**7.0**	**8.1**	**8.4**	**9.0**	**9.7**	**10.2**
Per unit metrics (₹/scm)										
Revenue	24.3	26.8	27.5	25.4	30.2	47.9	45.6	45.3	45.3	44.3
COGS	13.2	15.8	15.6	11.5	17.2	35.4	32.0	32.5	33.1	31.9
Gross profit	11.1	11.0	11.9	14.0	13.0	12.6	13.6	12.7	12.1	12.4
Opex	5.2	5.2	5.5	6.3	5.6	5.7	5.6	5.4	5.3	5.2
EBITDA	**5.9**	**5.8**	**6.4**	**7.6**	**7.4**	**6.9**	**8.0**	**7.3**	**6.8**	**7.2**
Ratios										
DPS (₹)	2.0	2.0	3.0	4.0	6.0	13.0	8.0	7.0	7.0	8.0
RoCE (Pre-Tax) (%)	25%	24%	24%	19%	21%	20%	23%	19%	17%	17%
RoE (%)	21%	21%	25%	18%	21%	21%	23%	19%	17%	16%
Net debt/Equity (x)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.2)	(0.3)	(0.3)	(0.3)	(0.4)
Net debt/EBITDA (x)	(0.8)	(1.0)	(0.9)	(1.1)	(1.0)	(0.9)	(1.0)	(1.2)	(1.5)	(1.7)
Dividend Cover (%)	397%	23%	93%	-1%	-75%	7%	101%	184%	187%	243%

Source: Company, Ambit Capital research

Valuation methodology

We have used SoTP methodology to value IGL and DCF methodology to value IGL's standalone business. We assume WACC and terminal growth rate of 11% and 3% respectively. We use P/E multiple to value IGL's 50% stake in Central UP Gas Limited (CUGL) and Maharashtra Natural Gas Limited (MNGL).

Exhibit 26: SoTP valuation summary

Particular	Amount (₹ mn)
IGL - Standalone	
Total PV of free cash flow	139,001
PV of terminal value	55,282
Enterprise value	**194,284**
Net debt (FY25E)	(30,097)
Equity value	**224,381**
No. of shares (mn)	700
Implied share price (₹)	**321**
CUGL	
FY25E EPS (₹)	20
P/E	18
Implied share price (₹)	**15**
MGGL	
FY25E EPS (₹)	50
P/E	18
Implied share price (₹)	**64**
Total value per share (₹)	**400**

Source: Company, Ambit Capital research

Our assumptions factor in the following:

- We have changed our previous assumptions related to volume growth and build in 7% CAGR for FY24E-27E vs 9% earlier. Also, we decrease long-term volume growth estimate to 5% vs 7% earlier.
- EBITDA/scm assumption decreases by 15% to ₹7.1 for FY25-27E due to recent price cut and uncertainties associated with APM allocation. No change to numbers after that.
- This leads to a decrease in target price by 17%.

Exhibit 27: Summary of changes to our estimates, valuations and target price

Particulars (₹ mn)	New Estimates			Old Estimates			Change		
	FY25E	FY26E	FY27E	FY25E	FY26E	FY27E	FY25E	FY26E	FY27
Rating	**SELL**			**BUY**			**DOWNGRADED**		
TP (₹)	**400**			**485**			**-17%**		
Revenue	149,201	159,645	165,810	154,210	153,787	166,957	-3%	4%	-1
EBITDA	24,094	24,109	26,745	27,076	30,609	35,694	-11%	-21%	-25
EBITDA %	16%	15%	16%	18%	20%	21%	-141bps	-480bps	-525bp
PBT	22,594	22,409	24,835	25,076	28,677	33,494	-10%	-22%	-26
PAT	16,945	16,807	18,626	18,807	21,508	25,120	-10%	-22%	-26
EPS (₹)	24.2	24.0	26.6	26.9	30.7	35.9	-10%	-22%	-26

Source: Company, Ambit Capital research; Note: Financials is for IGL's standalone business

We present the sensitivity of IGL's valuations to margins and volume trajectory. 1% CAGR change in volume over FY24E-40E is a major valuation driver and accounts for 8-10% swing in target valuation. ₹1 change in EBITDA/scm has a 15% impact on valuation.

Exhibit 28: Target price sensitivity analysis based on volumes and margins

Volume CAGR/EBITDA (₹/scm)	5.0	6.0	7.0	8.0	9.0
3.0%	276	320	365	411	455
4.0%	292	340	390	438	486
5.0%	305	357	**400**	459	513
6.0%	335	392	448	512	568
7.0%	361	423	485	551	612

Source: Company, Ambit Capital research

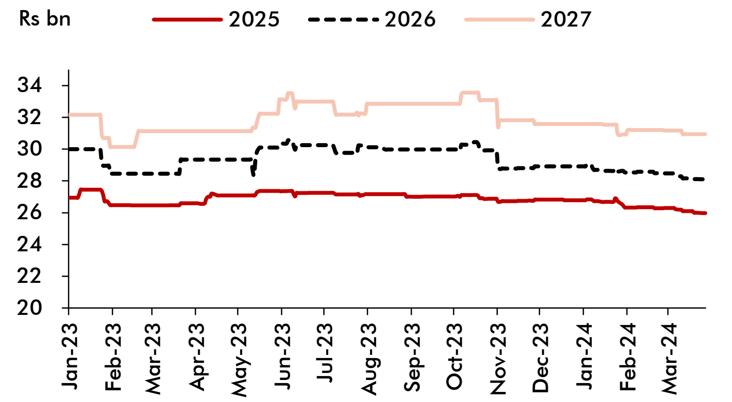
We have compared consensus' financial estimates with ours. We are lower than consensus on EBITDA and EPS for FY25-27E mainly because of lower margin expectations.

Exhibit 29: Ambit vs consensus

Particulars (mn)	Ambit	BBG	Divergence (%)	VA	Divergence (%)
Revenues					
FY25E	149,201	144,483	3%	147,141	1%
FY26E	159,645	154,545	3%	156,898	2%
FY27E	165,810	159,072	4%	173,452	-4%
EBITDA					
FY25E	24,094	25,939	-7%	25,627	-6%
FY26E	24,109	28,067	-14%	27,518	-12%
FY27E	26,745	30,942	-14%	29,440	-9%
EPS (₹)					
FY25E	24.2	27.2	-11%	25.6	-5%
FY26E	24.0	29.0	-17%	27.4	-12%
FY27E	26.6	32.6	-18%	29.5	-10%

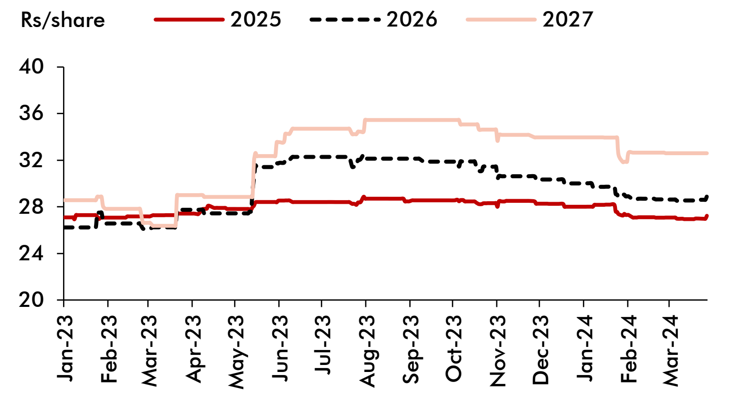
Source: Bloomberg, Visible Alpha, Company, Ambit Capital research

Exhibit 30: Upgrade in EBITDA estimates after implementation of KPC in Apr-23…



Source: Bloomberg, Ambit Capital research

Exhibit 31: …same is the case for EPS, however consistent pressure after that; we expect more downgrades



Source: Bloomberg, Ambit Capital research

Catalysts & Risks

Catalysts to our SELL call

- **Volume and EBITDA/scm:** We expect volume/margin of 9.0mmscmd/₹7.3 in FY25E. Both are lower vs consensus which is at 9.1mmscmd/₹7.7.
- **EV impact:** The Delhi government introduced a new EV policy in 2023. Strict enforcement and introduction of the policy in other areas would impact volume growth.
- **Slower expansion in new areas:** Apart from NCT, IGL has authorization for 9 other GAs. The company has been trying to increase penetration in these areas; however, consumer reluctance and infrastructure constraints would impact plans.
- **Lower APM gas allocation:** Despite tremendous efforts by ONGC and Oil India, APM production has been declining. However, natural gas demand has been continuously increasing in the country. This would lead to a gradual decline in APM gas allocation for all priority sectors, including CNG and PNG-D of the CGD industry.

Risks to our SELL call

- **Higher-than-expected volume growth:** Despite multiple challenges, IGL reported volume CAGR of 8% in FY18-24E. The company may grow faster than our estimates due to increasing popularity of natural gas as a fuel and infrastructure expansion in new GAs. This is possible due to multiple reasons like conversion of buses on CNG in Rajasthan, Haryana, UP and Uttarakhand as well as dumpers in Chitrakoot.
- **Strong margin:** IGL reported exceptionally strong margins in 9MFY24, which is unsustainable. However, they can be above historical average due to benign gas prices, especially international gas.

Ambit HAWK

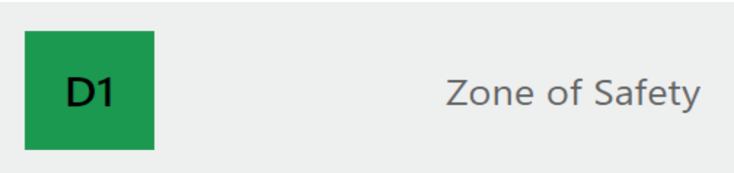
IGL featured in D1 decile (Zone of Safety) in 2023 on our accounting framework, and it has been in same zone since last 5 years. This was due to high CFO/EBITDA, low contingent liabilities & provisions, and high cash yield. However, its greatness score has been declining and it was 42% (Zone of Mediocrity) in 2023. This was due to lower EBIT margin, lower capital employed, and higher net debt/equity. We expect greatness score to remain under pressure due to stagnant earnings.

Exhibit 32: Explanation of forensic accounting score

Segment	Score	Comments
Accounting	GREEN	IGL featured in Zone of Safety on Ambit HAWK since last 5 years. This is due to strong performance on CFO/EBITDA, cash yield, and provisions. We expect it to maintain high accounting standards and hence assign a GREEN rating.
Predictability	AMBER	Several macro factors and regulatory issues continue to impact IGL operations. Hence, we assign a RED rating.
Earnings Momentum	RED	In the last six months, earnings expectations have moderated due to weak volume trends. Earnings are expected to remain largely stagnant as volume growth would be largely offset by decline in margins.

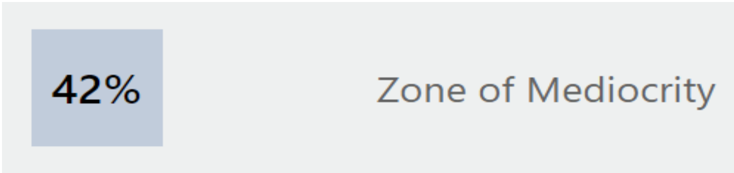
Source: Company, Ambit Capital research

Exhibit 33: Forensic Accounting Decile



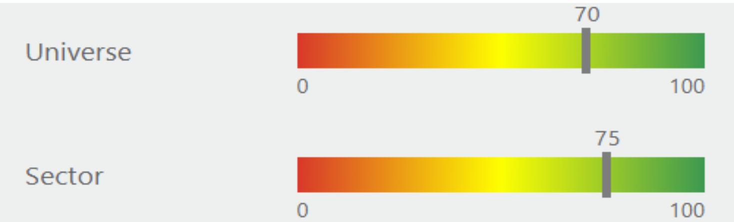
Source: Ambit HAWK, Company

Exhibit 34: Greatness Score



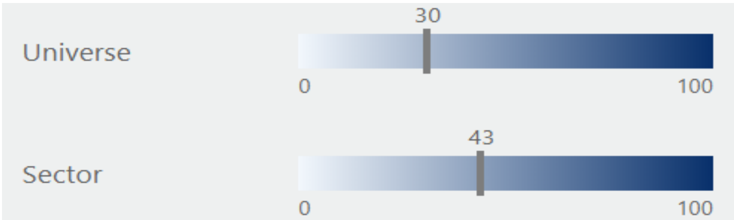
Source: Ambit HAWK, Company

Exhibit 35: Forensic Score Percentile



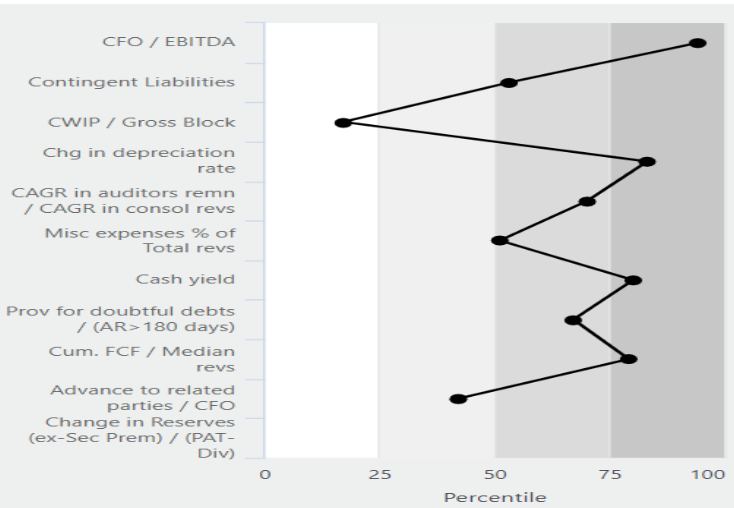
Source: Ambit HAWK, Company

Exhibit 36: Greatness Score Percentile



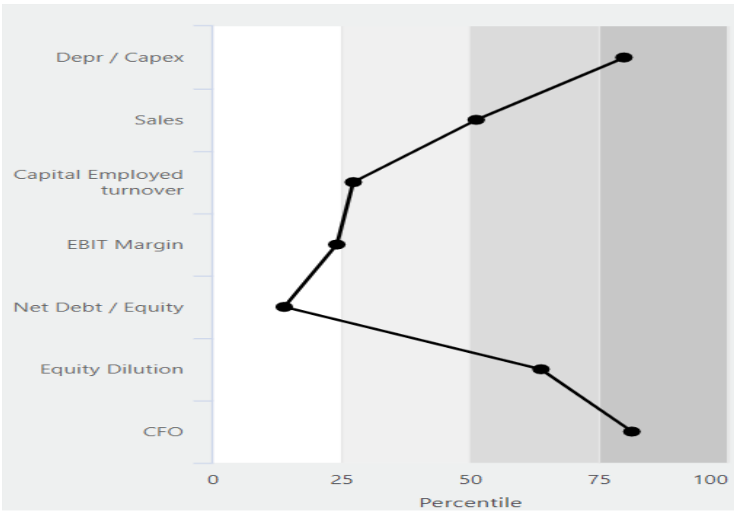
Source: Ambit HAWK, Company

Exhibit 37: Forensic Accounting Contributors



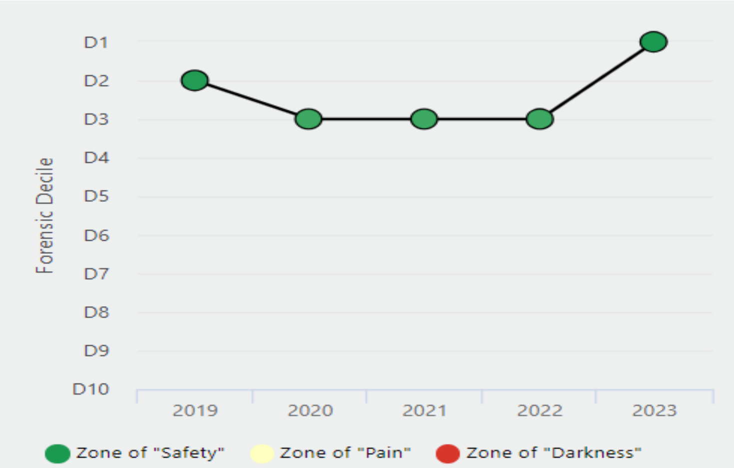
Source: Ambit HAWK, Company

Exhibit 38: Greatness Score Contributors



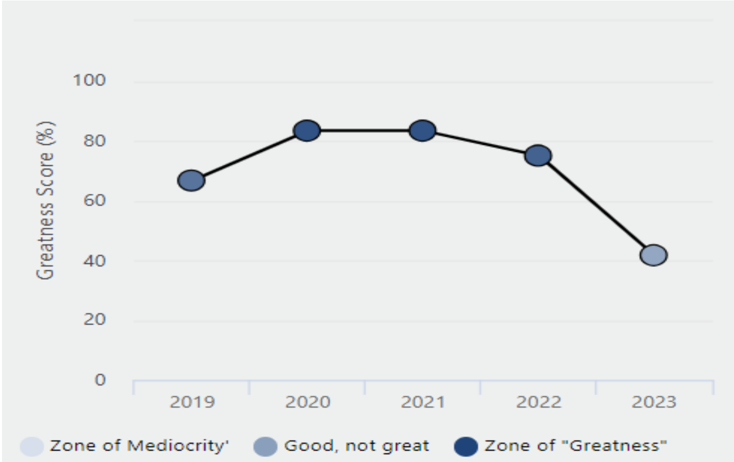
Source: Ambit HAWK, Company

Exhibit 39: Forensic Score – Evolution



Source: Ambit HAWK, Company

Exhibit 40: Greatness Score – Evolution



Source: Ambit HAWK, Company

Indraprastha Gas (IGL IN, SELL)

Valuation Methodology

We have used SoTP valuation methodology to value IGL. DCF methodology to value IGL's standalone business; assumed WACC and terminal growth rate of 11% and 3%. P/E multiple to value IGL's 50% stake in Central UP Gas Limited (CUGL) and Maharashtra Natural Gas Limited (MNGL). Our target valuation of 17x FY26E P/E is 10% lower vs last 10-yr average.

Risks

1) Slower than expected adoption of EVs by aggregators in NCT, 2) Benign gas prices and higher APM allocation, 3) Faster penetration in new geographical areas and new vehicle categories, 4) Conversion of buses on CNG in Rajasthan, Haryana, UP, and Uttarakhand as well as dumpers in Chitrakoot, and 5) Favourable ruling in case of Gurugram

Financials - Standalone

Exhibit 41: Income statement

Year to March (₹ mn)	FY22	FY23	FY24E	FY25E	FY26E	FY27E
Revenues	**77,098**	**141,459**	**140,611**	**149,201**	**159,645**	**165,810**
% growth	56.0%	83.5%	-0.6%	6.1%	7.0%	3.9%
Operating expenditure	58,289	121,061	115,939	125,107	135,536	139,065
EBITDA	**18,809**	**20,398**	**24,672**	**24,094**	**24,109**	**26,745**
% growth	26.8%	8.4%	21.0%	-2.3%	0.1%	10.9%
Depreciation	3,171	3,634	4,030	4,400	4,800	5,170
EBIT	**15,639**	**16,764**	**20,642**	**19,694**	**19,309**	**21,575**
Interest expenditure	132	106	91	100	100	100
Non-operating income	2,150	2,619	2,846	3,000	3,200	3,360
Adjusted PBT	**17,657**	**19,277**	**23,397**	**22,594**	**22,409**	**24,835**
Tax	4,509	4,827	5,610	5,648	5,602	6,209
Adjusted PAT	**13,148**	**14,450**	**17,787**	**16,945**	**16,807**	**18,626**
Diluted EPS (₹)	18.8	20.6	25.4	24.2	24.0	26.6

Source: Ambit Capital research, Company

Exhibit 42: Balance sheet

Year to March (₹ mn)	FY22	FY23	FY24E	FY25E	FY26E	FY27E
Shareholders' equity	1,400	1,400	1,400	1,400	1,400	1,400
Reserves and surpluses	67,962	69,466	81,916	93,778	105,543	118,581
Total net worth	**69,362**	**70,866**	**83,316**	**95,178**	**106,943**	**119,981**
Debt	1,076	828	828	828	828	828
Deferred tax liability	2,737	3,168	3,168	3,168	3,168	3,168
Consumer deposits	10,282	12,301	12,301	12,301	12,301	12,301
Total liabilities	**83,457**	**87,162**	**99,613**	**111,475**	**123,239**	**136,278**
Gross block	61,199	71,822	83,822	93,822	103,822	111,822
Net block	47,815	55,268	63,239	68,839	74,039	76,869
CWIP	13,786	14,337	14,337	14,337	14,337	14,337
Investments (non-current)	2,581	2,581	2,581	2,581	2,581	2,581
Debtors	5,206	9,034	7,705	8,175	8,748	9,085
Inventory	455	492	1,926	2,044	2,187	2,271
Loans & advances	212	218	228	240	252	264
Other Current Assets	3,675	5,306	5,571	5,850	6,142	6,449
Total current assets	**9,548**	**15,049**	**15,431**	**16,309**	**17,329**	**18,071**
Current liabilities	7,867	9,043	11,557	12,263	13,122	13,628
Provisions	13,199	21,554	21,554	21,554	21,554	21,554
Total current liabilities	**21,066**	**30,597**	**33,111**	**33,817**	**34,676**	**35,182**
Net current assets (ex-cash)	**(11,518)**	**(15,549)**	**(17,681)**	**(17,508)**	**(17,347)**	**(17,112)**
Cash & cash equivalents	30,793	30,524	37,136	43,226	49,629	59,602
Total assets	**83,457**	**87,162**	**99,613**	**111,475**	**123,239**	**136,278**

Source: Ambit Capital research, Company

Exhibit 43: Cash flow statement

Year to March (₹ mn)	FY22	FY23	FY24E	FY25E	FY26E	FY27E
Net profit before tax	17,657	19,277	23,397	22,594	22,409	24,835
Depreciation	3,171	3,634	4,030	4,400	4,800	5,170
Tax	(4,509)	(4,827)	(5,610)	(5,648)	(5,602)	(6,209)
(Incr)/decr in net working capital	3,410	4,030	2,132	(172)	(161)	(235)
Others	(749)	192	(4,708)	(5)	100	261
Cash flow from operations	**18,979**	**22,306**	**19,241**	**21,168**	**21,545**	**23,821**
Capex (net)	(13,370)	(11,221)	(12,000)	(10,000)	(10,000)	(8,000)
(Incr)/decr in investments	-	-	-	-	-	-
Others	(2,478)	2,807	4,029	(775)	(997)	(1,293)
Cash flow from investments	**(15,848)**	**(8,414)**	**(7,971)**	**(10,775)**	**(10,997)**	**(9,293)**
Net borrowings						
Interest paid & others	(1,325)	(11,066)	8,292	1,033	939	486
Dividend paid	(1,960)	(2,520)	(12,950)	(5,336)	(5,084)	(5,042)
Cash flow from financing	**(3,285)**	**(13,586)**	**(4,658)**	**(4,303)**	**(4,145)**	**(4,556)**
Net change in cash	(153)	306	6,613	6,090	6,403	9,973
Cash Profit/(Loss)	**5,610**	**11,085**	**7,241**	**11,168**	**11,545**	**15,821**

Source: Ambit Capital research, Company

Exhibit 44: Ratio analysis

Year to March	FY22	FY23	FY24E	FY25E	FY26E	FY27E
EBITDA margin (%)	24.4%	14.4%	17.5%	16.1%	15.1%	16.1%
Net prof. margin (%)	17.1%	10.2%	12.6%	11.4%	10.5%	11.2%
Dividend payout ratio (%)	15%	17%	73%	31%	30%	27%
Net debt: equity (x)	(0.4)	(0.4)	(0.4)	(0.4)	(0.5)	(0.5)
Average Working capital days	(46.5)	(34.9)	(43.1)	(43.0)	(39.8)	(37.9)
Gross block turnover (x)	1.3	2.0	1.7	1.6	1.5	1.5
RoCE (pre-tax) (%)	20.9%	20.4%	22.9%	19.2%	16.9%	17.0%
RoE (%)	20.5%	20.6%	23.1%	19.0%	16.6%	16.4%
Book value per share (₹)	99.1	101.2	119.0	136.0	152.8	171.4
P/E (x)	25.0	22.7	18.5	19.4	19.5	17.6
P/BV (x)	4.7	4.6	3.9	3.4	3.1	2.7
EV/EBITDA (x)	15.9	14.6	12.1	12.4	12.4	11.1
EV/EBIT (x)	19.1	17.8	14.4	15.1	15.4	13.8

Source: Ambit Capital research, Company

Gujarat Gas

BUY

CHANGE IN STANCE	GUJGA IN EQUITY	May 02, 2024

Passed peak uncertainties

GGas' volumes recovered from FY23 lows as propane lost some competitiveness vs Asian spot LNG in 9MFY24. Currently, spot LNG is cheaper and is expected to have better economics. This along with expansion, stricter pollution curbs and focus on CNG portfolio would result in higher volume growth. We expect CAGR of 12%/8% in FY24E-27E/FY24E-40E, 2ppt higher vs previous estimates, and drives 38% TP upgrade. Despite high exposure to international gas, we see margin improvement due to normalization in spot gas market and increasing CNG volumes. Our target valuation of 25x FY26E P/E is at a 28% premium to last 10-yr average. We see a case for premium valuation sustaining given volume-led 26% EPS CAGR over FY24E-27E with average pre-tax RoCE of 21%.

Competitive position: STRONG Changes to this position: POSITIVE

Russia-Ukraine war dramatically altered the landscape temporarily

GGas' story started in 2019 with introduction of ban on coal gasifiers in Morbi. This was supported by gas attractiveness vs alternative fuels like propane. However, gas prices shot up after Russia's invasion of Ukraine. After 15% volume CAGR in FY18-22, volume dropped 22% YoY in FY23. Further, Dec-23 volumes were about 12% lower vs FY22. 12% volume CAGR in FY24E-27E assumes recovery of lost Morbi volumes and expansion of CNG portfolio. Stricter pollution curbs from FY28E would provide long-term volume CAGR of 8%.

Resolution of trade-off between volumes vs margins

Asian spot LNG would regain economic superiority vs propane. This along with favourable domestic sourcing and long-term contracts would result in above-average industrial PNG margins. Another margin driver is unchanged CNG contribution vs. FY24E in FY27E (28%) despite 13% FY24-27E industrial PNG volume CAGR. We expect EBITDA/scm of ₹6.6 in FY25E-27E vs ₹5.3/₹7.8 in FY18-24E/FY23.

GGas's capital allocation remains prudent

Steadfast focus on monetizing old GAs and vigilant expansion in new GAs are evidence of cautious capital allocation. GGas was able to reinvest 60% of CFO over FY18-24E and pared debt to become cash surplus. Reinvestment rate is expected to be about 40% in FY25E-27E and its RoE will remain >18% as we expect it to return surplus cash to investors.

Best play on moderation of gas prices

Following softness in natural gas prices, 1-yr fwd P/E recovered from a low of 16x in Oct-23 to 23x currently. GGas has authorization for 27 GAs and thereby has huge growth potential. We expect long-term volume CAGR of 8% vs 7% in FY18-24E along with above average margins. This would lead to better return profile and hence our target valuation of 25x FY26E P/E is justifiable.

Key Financials

Year to March (₹ bn)	FY23	FY24E	FY25E	FY26E	FY27E
Revenue	168	154	172	190	205
EBITDA	24	17	24	28	31
PAT	15	10	14	18	20
EPS (₹)	22.2	14.4	21.0	25.5	28.7
Pre-Tax RoCE (%)	26.1	15.2	20.3	21.8	21.7
P/E (x)	24.7	37.9	26.0	21.4	19.1
EV/EBITDA (x)	15.3	21.1	15.5	13.1	11.7

Source: Company, Ambit Capital research

Oil & Gas

Recommendation

Mcap (bn):	₹376/US$4.5
6M ADV (mn):	₹812/US$9.8
CMP:	₹547
TP (12 Mths):	₹650
Upside (%):	19

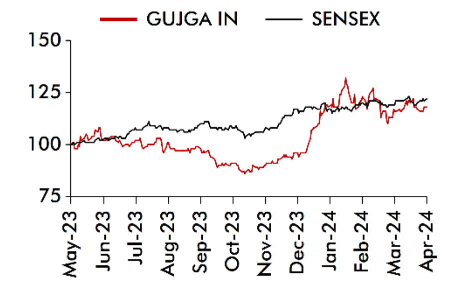
Flags

Accounting:	GREEN
Predictability:	AMBER
Earnings Momentum:	GREEN

Catalysts

- 11% YoY volume growth in FY25E with EBITDA/scm of ₹6.3.
- Dividend cover above 300% in FY25E vs sub-100% in FY24E.

Performance



Source: ICE, Ambit Capital Research

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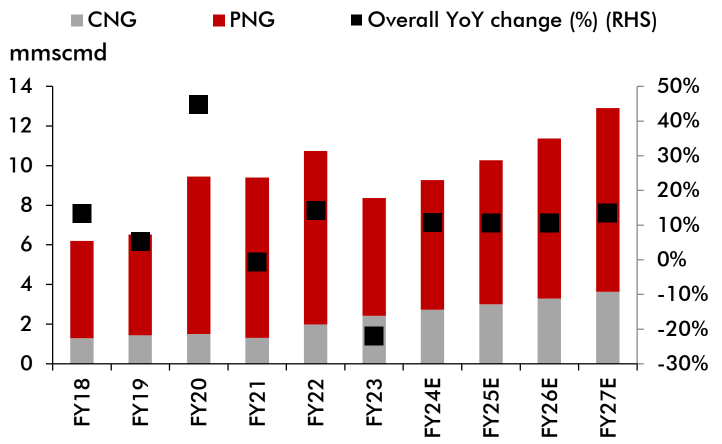
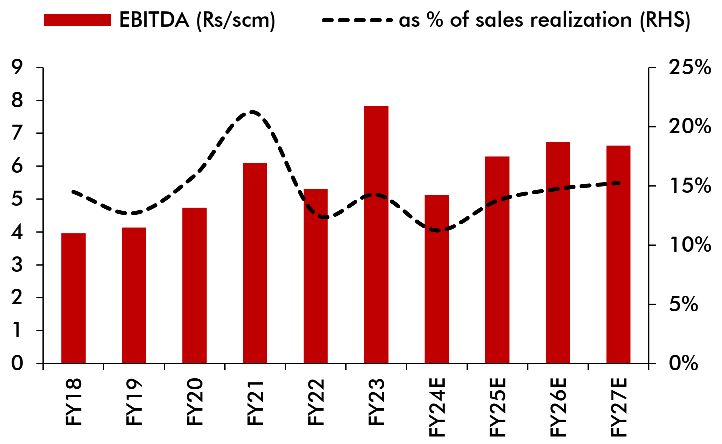
The Narrative in Charts

Exhibit 1: GGas volumes should grow on sustained basis supported by both CNG and PNG...



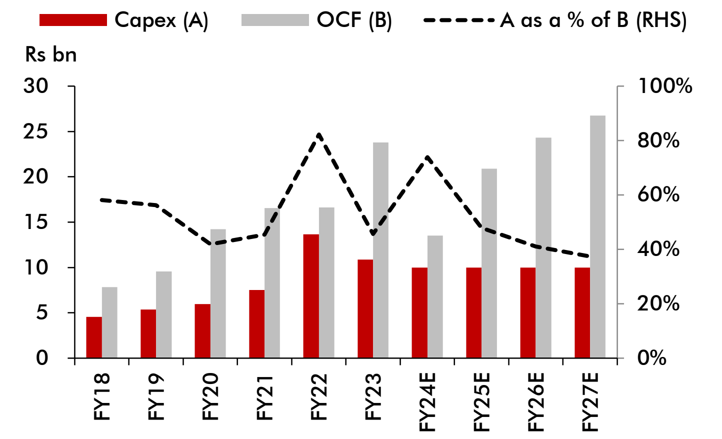
Source: Company, Ambit Capital research

Exhibit 2: ...also the company would be able protect its margins



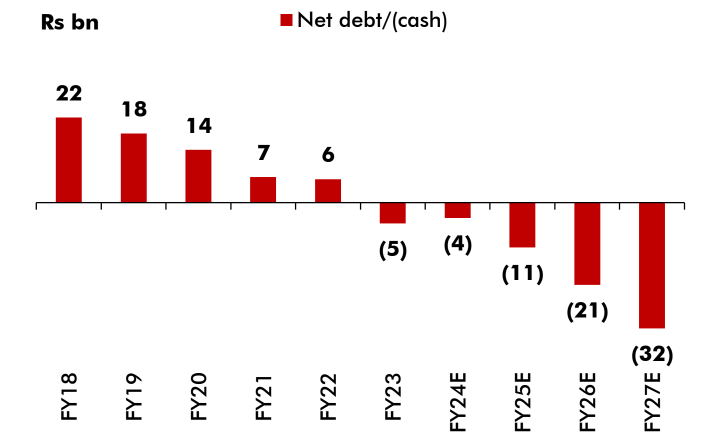
Source: Company, Ambit Capital research

Exhibit 3: GGas capex continues to be lower vs OCF...



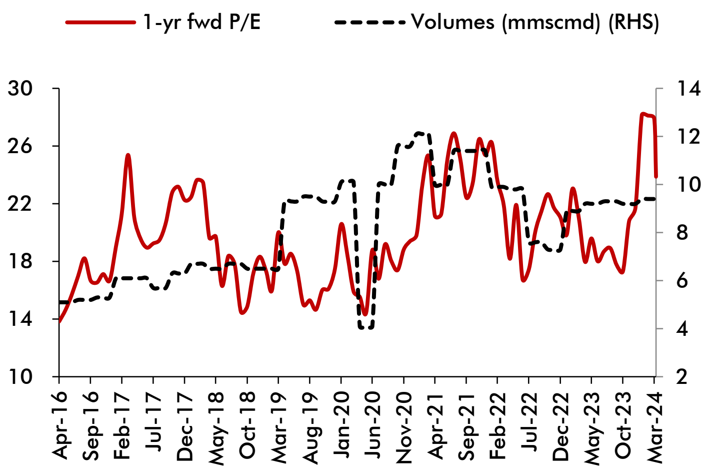
Source: Company, Ambit Capital research

Exhibit 4: ...this would allow it maintain cash surplus



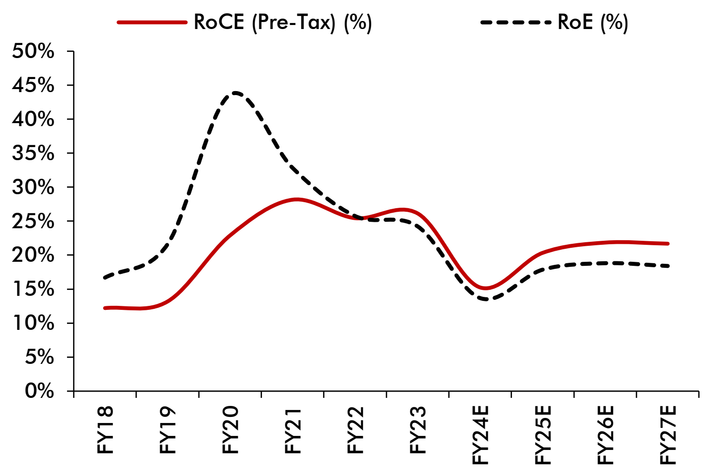
Source: Company, Ambit Capital research

Exhibit 5: Valuations correlated with volumes since 2020, and sharply higher vs long-term average...



Source: Company, Bloomberg, Ambit Capital research

Exhibit 6: ...but justified by return profile



Source: Company, Ambit Capital research

Volume growth to return; FY26 to break FY22 record

GGas held on to its volume gains after NGT's ban on coal gasifiers in Morbi (Mar-19). This was supported by favourable Asian spot LNG prices which enabled it to competitively price gas. However, the Russia-Ukraine war has changed this. Overall volumes grew at a CAGR of 15% in FY18-22 but dropped 22% YoY in FY23. This was mainly due to sharp fall in industrial volumes as propane became economically superior. Now with normalization in the gas market, we expect industrial volumes to grow again and Morbi to set a new record in FY27E. Apart from this, GGas has increased its focus on CNG which has huge potential due to lower penetration of CNG in all vehicle categories across its all GAs. Considering all these and expansion of infrastructure, we expect an overall volume of 11.4mmscmd in FY26E (vs. 10.7mmscmd in FY22), and a CAGR of 12% in FY24E-27E; CNG/PNG-I to grow at 10%/13%.

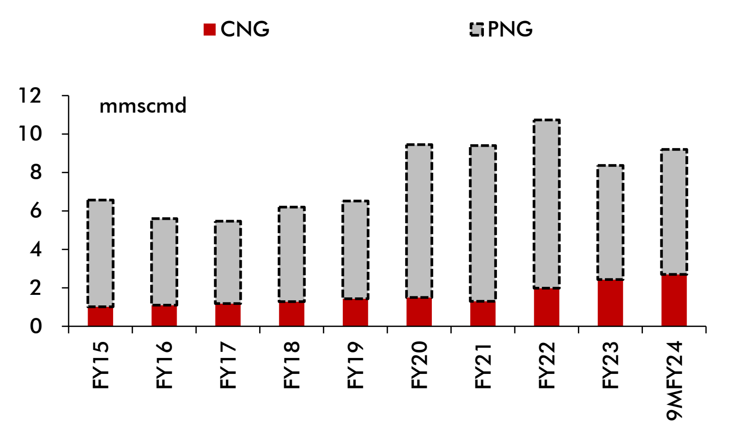
Recovery has started…

GGas' volumes remained stagnant at about 6mmscmd in FY15-19; however, the company got a boost in FY20 due to robust demand from Morbi region in Gujarat, which benefited significantly from the National Green Tribunal (NGT) order in Mar-19. Volumes touched all-time annual high in FY22 at 10.7mmscmd as gas demand in Morbi jumped to about 6.0mmscmd vs 2.0-2.5mmscmd prior to NGT order. The growth trajectory was adversely impacted due to the Russia-Ukraine war as global gas prices increased sharply and Asian spot LNG lost its competitiveness vs propane (LPG).

Asian spot LNG prices were about 25% lower vs Middle Eastern propane in 4QFY24.

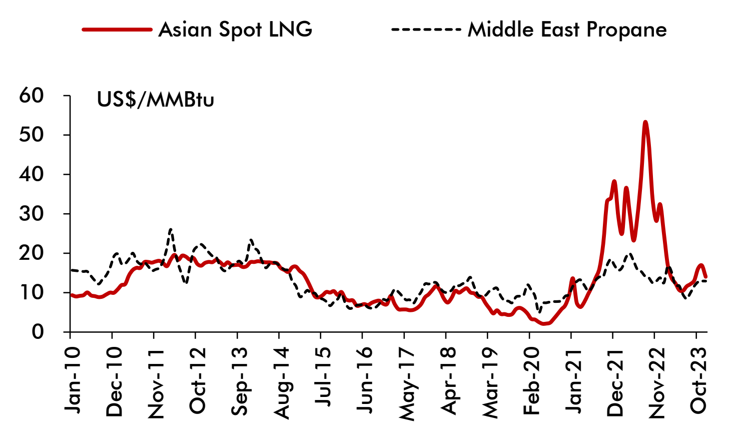
- In FY15-21, Asian spot LNG prices were 14% lower vs propane but that has changed. Asian spot LNG prices were 56%/106% higher vs propane in FY22/FY23. PNG-I average prices in Morbi was ₹57/scm in FY23, about 19% higher vs propane.
- The company tried to protect its volume in 1QFY23 but that impacted profitability, and hence company preferred margins for rest of FY23 considering this as a short-term phenomenon. Volumes decreased 22% YoY to 8.4mmscmd in FY23.
- Due to lower demand in Europe, improved infrastructure, and better coordination, global natural gas prices decreased. This reduced propane attractiveness vs Asian spot LNG to 15%/9% in 9MFY24/Dec-23, and GGas volumes recovered to 9.2mmscmd in 9MFY24.

Exhibit 7: Volume CAGR of 15% in FY18-22 but only 6% CAGR in F18-23



Source: Company, Ambit Capital research

Exhibit 8: Volumes dropped 22% YoY in FY23 due to sharp jump in Asian spot LNG prices



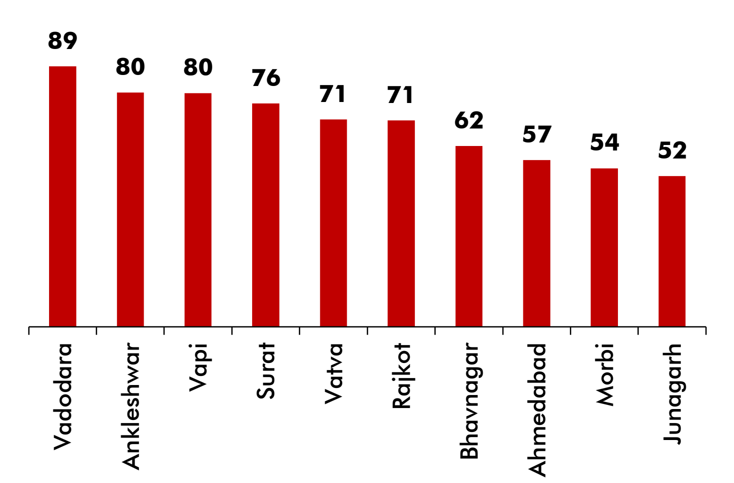
Source: Bloomberg, Ambit Capital research

...growth opportunities across all segments...

Daily volumes were 10% higher in 9MFY24 vs FY23 but still 24% lower than all-time quarterly high reached in 4QFY21. We highlight near to medium-term volume triggers below:

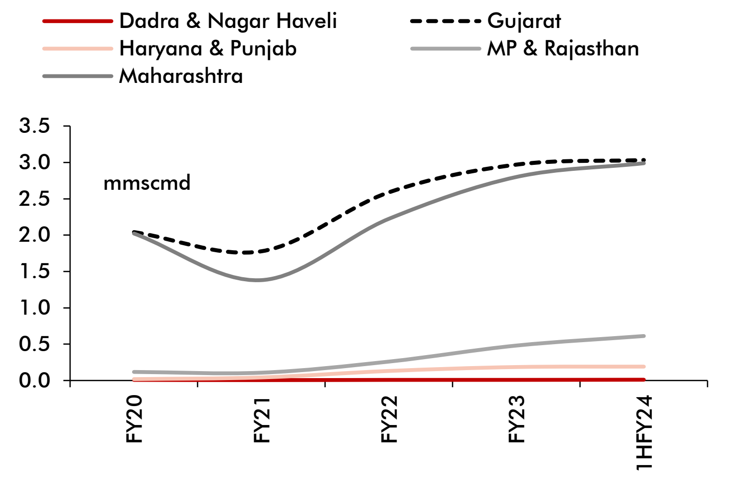
- Overall industrial demand from Morbi is in the range of 8-8.5mmscmd; however, 80% of units are operating due to lower demand. GGas is meeting about 70% of total effective demand and it expects Morbi demand at the same level of 4.5-5mmscmd in the near term. In our view, the company can recapture lost volumes of 2-2.5mmscmd in FY25E-27E from propane with normalization in gas market. Apart from that, another 1.5mmscmd potential if all units starts operations. As per a media article, India's ceramic exports should grow at a CAGR of 20% in FY23-27E.
- NGT has identified 100 industrial clusters with high CEPI (Comprehensive Environmental Pollution Index) score. Among these, many clusters like Ankleshwar, Bhavnagar, Ahmedabad, Surat, Morbi, Rajkot and others fall under GGas's GAs. These clusters can face ban on coal, furnace oil, and petcoke even if natural gas prices are about 5-10% higher (high probability from FY28E).
- GGas has authorization for 27 GAs; only behind Adani Total Gas Limited. This highlights huge potential for CNG and PNG–D&C volumes to grow. Ahmedabad Rural order has been implemented from Jan-24 and volumes should start flowing in soon. The area has a potential of 0.5mmscmd demand (Industrial and CNG combined) in the medium term.

Exhibit 9: 9% of industrial clusters with high CEPI score are in Gujarat



Source: Green Tribunal, Ambit Capital research; Note: 70 or above is critically polluted, 70-60 is considered to be severely polluted

Exhibit 10: CNG volumes are increasing in all geographical areas of the company



Source: PPAC, Ambit Capital research; Note: Volumes doesn't represent whole states and doesn't belongs to Gujarat Gas only

GGas has presence in Gujarat, Haryana, Punjab, MP, Rajasthan, and Maharashtra. However, about 60% of its GAs are in Gujarat. Due to this, we have considered Gujarat for analysing impact of EVs across different vehicle categories.

- CNG has become first preference in 3W categories in the last 5 years. This is despite sharp increase in CNG prices in FY23. However, CNG's truck and mini truck sales took a hit due to higher prices.
- In case of buses, CNG vehicles have been becoming popular while not much change for 4Ws (PV) in the last 10 years.

Exhibit 11: Trend of vehicle sales in Gujarat based on fuel types and vehicle categories; CNG dominates 3W in recent years and becoming popular in other categories too

Particular	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	9MFY24
Trucks										
CNG ONLY	0%	0%	1%	0%	0%	0%	2%	13%	4%	2%
DIESEL	98%	91%	96%	95%	97%	96%	90%	83%	91%	93%
Mini Trucks										
CNG ONLY	0%	0%	0%	0%	0%	0%	5%	35%	24%	25%
DIESEL	72%	65%	74%	95%	96%	95%	76%	58%	71%	70%
Buses										
CNG ONLY	0%	0%	0%	15%	1%	2%	20%	6%	15%	3%
DIESEL	100%	100%	100%	85%	99%	96%	69%	86%	79%	94%
ELECTRIC(BOV)	0%	0%	0%	0%	0%	1%	11%	8%	6%	4%
3W										
CNG ONLY	0%	0%	0%	0%	0%	1%	63%	84%	81%	83%
DIESEL	56%	50%	43%	35%	30%	30%	25%	11%	14%	13%
ELECTRIC(BOV)	0%	0%	0%	0%	0%	0%	4%	3%	3%	4%
PETROL/CNG	43%	49%	56%	64%	70%	68%	8%	2%	2%	0%
4W (PV)										
DIESEL	60%	53%	52%	46%	39%	37%	32%	34%	33%	37%
ELECTRIC(BOV)	0%	0%	0%	0%	0%	0%	0%	0%	1%	2%
PETROL	23%	28%	29%	31%	35%	39%	53%	50%	42%	33%
PETROL/CNG	17%	19%	18%	18%	21%	19%	11%	13%	18%	24%

Source: Vahan, Ambit Capital research; Note: We present only major fuel types for a particular vehicle category

Apart from 3Ws, penetration of CNG is miniscule across all vehicle categories. We do acknowledge that consumers have been rapidly shifting away from conventional fuels in the last 5 years. Still, all vehicle categories present huge opportunities for both CNG and EVs to grow as they are still dominated by petrol and diesel.

Exhibit 12: Penetration based on fuel types across different vehicle categories in Gujarat; huge CNG potential in all vehicle categories amid lower penetration

Particular	Trucks	Mini Trucks	Buses	3W	PV
CNG ONLY	2%	9%	4%	23%	0%
DIESEL	93%	77%	93%	32%	42%
DIESEL/HYBRID	0%	0%	0%	0%	1%
ELECTRIC(BOV)	0%	0%	2%	1%	0%
PETROL	0%	2%	0%	0%	36%
PETROL/CNG	0%	1%	0%	43%	18%
PETROL/HYBRID	0%	0%	0%	0%	2%

Source: Vahan, Ambit Capital research; Note: We have considered data from FY15 to 9MFY24 to calculate penetration, we present only major fuel types for a particular vehicle category

The company has started CNG and PNG sales in all GAs, and all areas have growth potential:

- CNG has much more scope to grow as petrol and diesel still dominate all vehicle categories.
- Overall PNG-D penetration is about 25%. The company has been expanding its infrastructure to reach more PNG customers, including commercial and industrial.
- Increasing population and per capita income to increase demand for energy including natural gas.

Exhibit 13: Summary of GGas' GAs with focus on existing infrastructure, MWP, and PNG-D penetration; gas has huge potential across all 3 segments of PNG

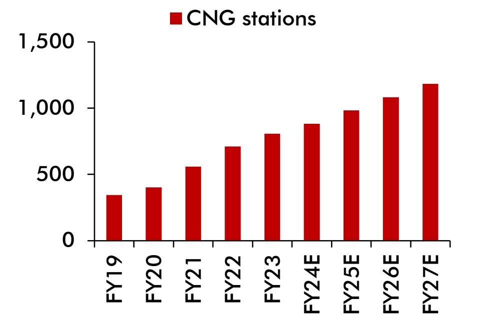
Geographical area	Status as on 30th Sep-23				MWP		Households (2011)	Adjusted households (2024)	Penetration (%)
	CNG stations	PNG-D	PNG-C	PNG-I	CNG	PNG-D			
Bhavnagar	39	66,111	433	87			538,605	245,193	27%
Jamnagar	30	48,520	221	134			430,941	196,180	25%
Kutch West	19	9,490	59	6			NA	NA	NA
Palghar District and Thane Rural	33	49,401	27	98			131,830	60,014	82%
UT of Dadra & Nagar Haveli	7	11,563	55	60			76,458	34,807	33%
Amritsar	19	26,434	290	12			488,898	222,565	12%
Bhatinda	19	4,628	13	0			273,902	124,690	4%
Amreli	15	11,274	51	1			294,837	134,221	8%
Dahej Vagra Taluka	5	1,511	16	54			189,274	86,164	2%
Dahod	17	9,498	28	28			265,886	121,041	8%
Anand	30	43,252	397	30			261,593	119,087	36%
Panchmahal	32	23,731	153	90			446,611	203,314	12%
Ahmedabad*	10	12,487	1	8			NA	NA	NA
Surat , Bharuch , Ankleshwar	118	799,697	9,477	1,047			1,737,465	988,699	81%
Nadiad	40	74,136	515	29			114,929	130,800	57%
Navsari	27	116,991	269	48			295,131	167,943	70%
Rajkot	90	351,347	1,214	1,488			786,586	447,604	78%
Surendranagar	30	30,570	335	366			343,213	156,243	20%
Hazira	1	40,186	141	22			NA	NA	NA
Valsad	26	128,059	435	721			364,403	165,890	77%
Narmada (Rajpipla) District	9	2,833	4	0	4	1,750	122,174	55,618	5%
Sirsa , Fatehabad and Mansa (Punjab)	26	553	0	0	54	500,001	576,838	656,495	0%
Ujjain, Dewas and Indore	23	776	0	0	42	484,500	1,349,849	614,502	0%
Jhabua , Banswara , Ratlam and Dungarpur	30	586	0	0	54	450,000	1,140,666	519,274	0%
Ferozepur , Faridkot and Sri Muktsar Sahib	27	408	1	0	45	350,004	185,936	211,612	0%
Hoshiarpur and Gurdaspur	40	1,960	1	0	81	600,123	780,660	888,464	0%
Jalore and Sirohi	28	4,889	12	0	30	400,008	527,919	600,821	1%
Total	**790**	**1,870,891**	**14,148**	**4,329**	**310**	**2,786,386**	**11,724,603**	**7,151,242**	**26%**

*Source: PPAC, PNGRB, Census India, Ambit Capital research; Note: We have assumed a CAGR of 1% to calculate households in 2024 as census data is only available for 2011. Also, household data in 2024 has been adjusted for slum houses which won't receive PNG connections anytime soon. * indicates except area already authorized and NA is not available*

...supported by infrastructure expansion

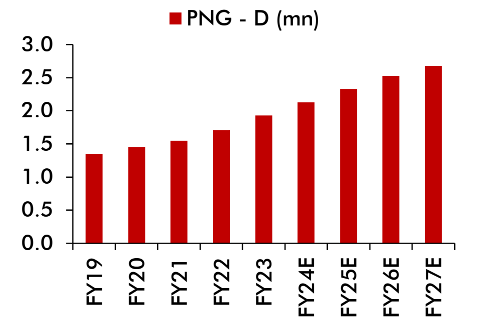
- GGas added 405 new CNG stations in FY21-23, and this was higher than total number of stations at the end of FY20. This is the best among listed peers and accounted for 12% of India's CNG station growth. The company recently launched Full Dealer Owned Dealer Operated (FODOCO) model for putting up additional CNG stations and has received 700 online applications. Of this, the company will put up 200 CNG stations in the next 2 years.
- The company has been aggressively adding households as well as industrial and commercial customers. Despite Covid-19, GGas added 0.5 million new households in FY21-23; about 25% of the total at the end of FY23. Also, it added 2,353 industrial and commercial customers during the same period which represents 13% of the total. We expect aggressive network addition to continue and likely increase in PNG customers.

Exhibit 14: We expect 300 new CNG stations in FY25-27E…



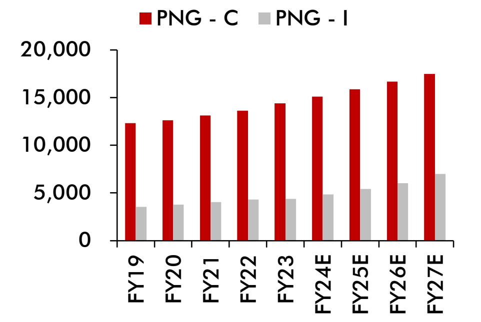
Source: Company, Ambit Capital research

Exhibit 15: …8% CAGR in PNG-D customers in FY24E-27E; 0.6mn new



Source: Company, Ambit Capital research

Exhibit 16: GGas to add about 4.5k new PNG–I&C customers in FY25-27E

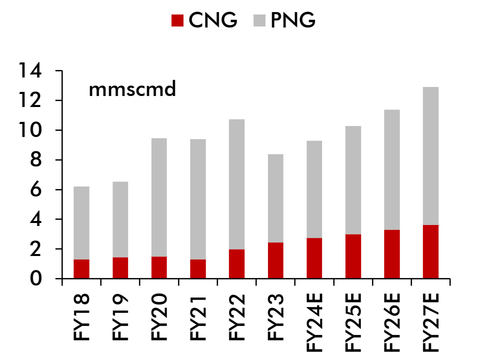


Source: Company, Ambit Capital research

We expect volume CAGR of 12% in FY24E-27E mainly driven by CNG and PNG-I.

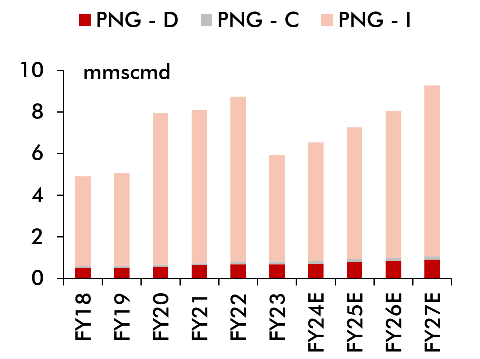
- With normalization in the gas market and expectations of better economics vs propane, we expect volume CAGR of 13% in FY24E-27E for PNG-I. Industrial volumes would grow but the share is expected to be around 60% vs 75% in FY18-22 due to rapid growth of the CNG segment.
- CNG business has scaled up meaningfully and volume grew at a CAGR of 13% in FY18-24E. This was due to opening of a higher number of CNG stations in the last 3 years. The management remains committed to the CNG business and expects volume growth similar to past rates. We expect 10% CAGR in FY24E-27E.

Exhibit 17: CNG/PNG volume CAGR of 10%/12% in FY24-27E…



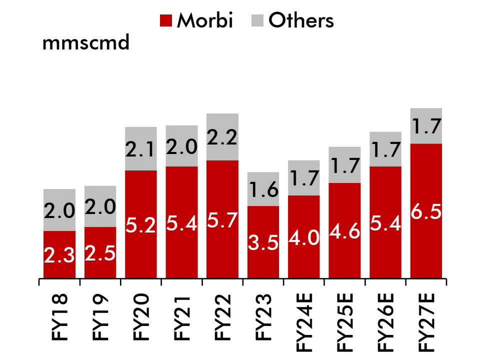
Source: Company, Ambit Capital research

Exhibit 18: …9%, 5% and 13% for PNG-D, PNG-C, and PNG-I



Source: Company, Ambit Capital research

Exhibit 19: Morbi to cross FY22 volumes in FY27E



Source: Company, Ambit Capital research

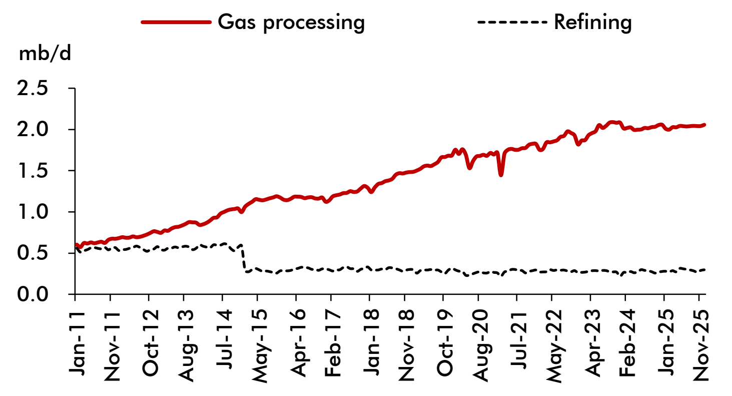
Enhanced margins are the new normal

Asian spot LNG prices used to be lower vs propane prices; however, this relationship has changed in FY22-24E due to the Russia-Ukraine war which led to a sharp increase in gas prices. We expect resumption of Asian spot LNG superiority over propane due to improving LNG gasification infrastructure as well as higher propane demand amid petrochemicals recovery. This along with favourable government policies related to domestic gas sources, increasing proportion of CNG volumes in overall portfolio, and pricing power would allow GGas to focus on margins while maintaining upward volume growth trajectory. We expect EBITDA/scm of ₹6.6 in FY25E-27E vs ₹5.3/₹7.8 in FY18-24E/FY23. This is despite increasing share of spot LNG in gas sourcing to 40% in FY27E vs almost nil in FY23.

Asian spot LNG economics superior vs propane…

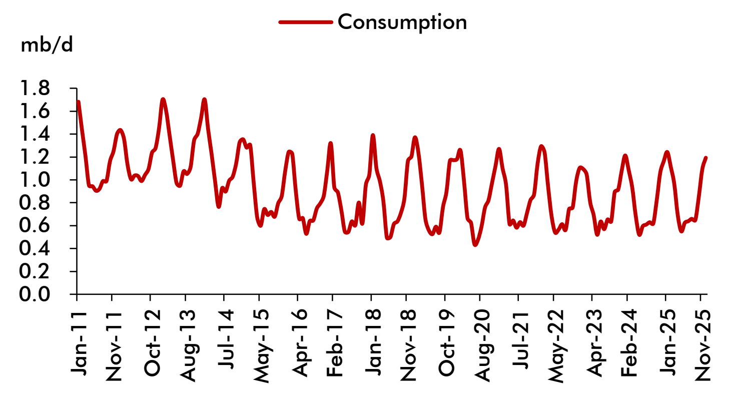
The U.S. is the world's leading supplier of propane, exporting more than half of its 2.3mb/d propane production to Asia, Latin America and Europe. Propane fundamentals have shifted dramatically in the U.S. in less than a decade. Growth in oil and natural gas production from U.S. shale contributed to a wave of export capacity investment in the U.S. Gulf Coast region from 2013-2017, which allowed the U.S. to become a leading supplier to global markets.

Exhibit 20: Increase in gas production led to sharp increase in propane production in the U.S.…



Source: EIA, Ambit Capital research; Note: Apr-24 onwards estimates

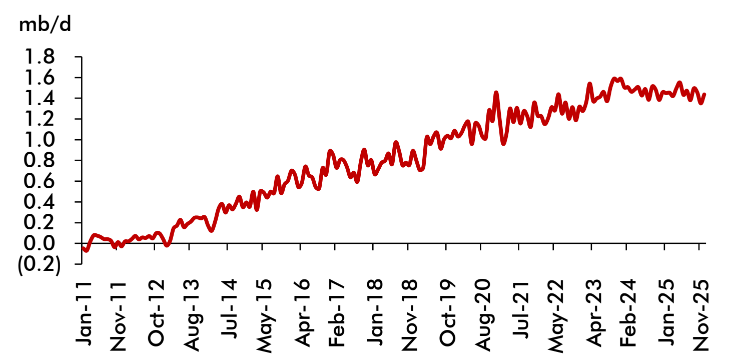
Exhibit 21: …and domestic consumption has been in structural decline



Source: EIA, Ambit Capital research; Note: Apr-24 onwards estimates

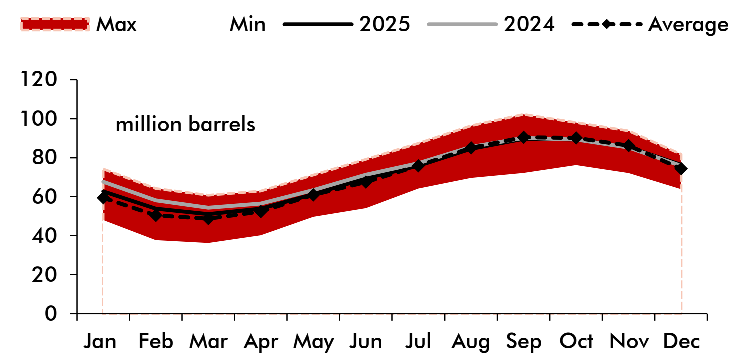
As per EIA's STEO Apr-24, U.S. propane export was 0.4/1.1mb/d in 2011-17/2018-23, and it is expected to increase to 1.5mb/d in 2024-25. Also, U.S. propane inventories continue to be within 5-yr range in forecast period.

Exhibit 22: U.S. became a major propane exporter in less than a decade and expected to remain so in 2024-2025



Source: EIA, Ambit Capital research; Note: Estimates from Apr-24

Exhibit 23: U.S. propane inventories continue to be within the 5-year range in 2024-25

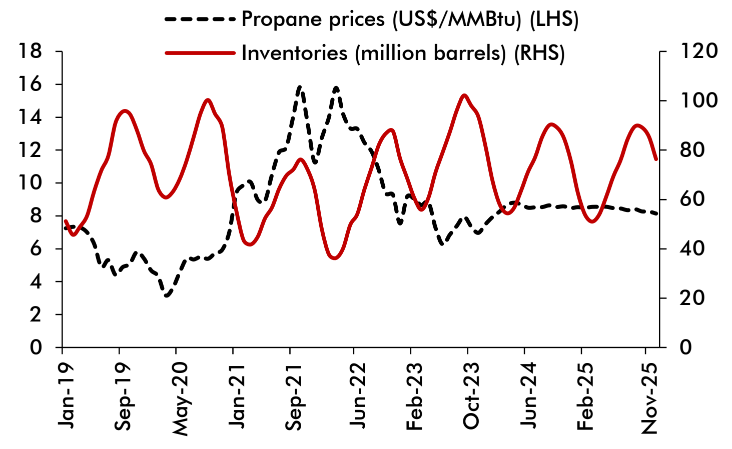


Source: EIA, Ambit Capital research; Note: Range of 2019-2023 has been considered and estimates from Apr-24

In addition to being affected by crude oil price, propane price is increasingly affected by the price of U.S. natural gas because of more U.S. propane production from natural gas processing. In U.S., propane from natural gas production is now seven times larger than production from petroleum.

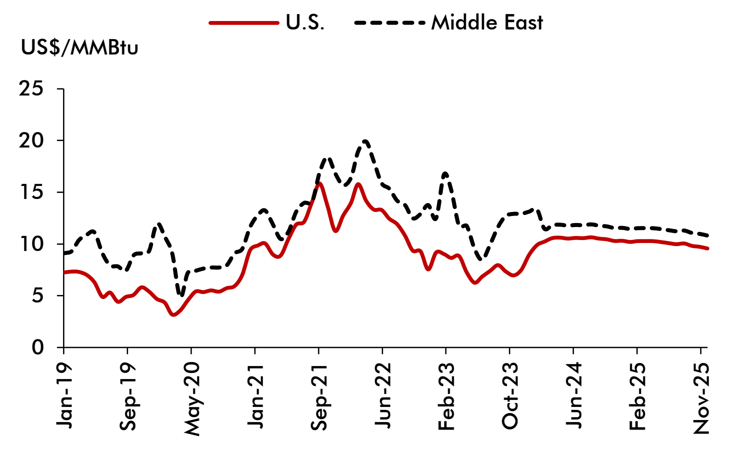
- As per EIA's Apr-24 STEO, propane price (Mount Belvieu) in U.S. is expected to be in range of US$8.5-9.5/MMBtu during 2024-2025 vs US$8.5/US$8.0 per MMBtu in 2019-22/2023. This is due to higher demand from recovering petrochemical industry in China.
- Middle East is the major competitor for U.S. but their market is highly dependent upon each other. Prices in Middle East are largely similar to U.S. plus transportation charge of US$2.0/MMBtu.
- We expect Asian spot LNG price to average US$9.5/$9.2 per MMBtu in FY25E/FY26E. This is lower vs our adjusted propane price (Middle East) estimates of US$11.0/MMBtu in FY25E-26E. This relationship to continue even after FY26E.

Exhibit 24: Inverse relationship between inventories and prices in U.S.



Source: EIA, Ambit Capital research; Note: Estimates from Apr-24

Exhibit 25: High correlation between propane prices in U.S. and Asia; LNG to be cheaper, which is beneficial for GGas



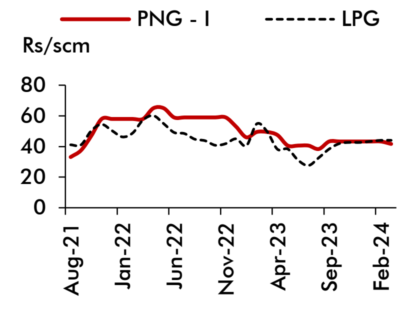
Source: Bloomberg, EIA, Ambit Capital research; Note: Estimates from Apr-24

...and this would resolve major trade-off

The company faced volume vs margin trade-off during the last 18 months due to higher gas prices and lost competitiveness vs propane. GGas reported EBITDA/SCM of ₹6.6 in FY22-23 vs ₹4.5 in FY17-21 but with a sharp fall in industrial volumes. Now with normalization in the gas market, trade-off would resolve as the company can grow volumes while maintaining/increasing margins. Management expects margins to be in range of ₹4.5-5.5, and we also remain confident due to multiple factors highlighted below:

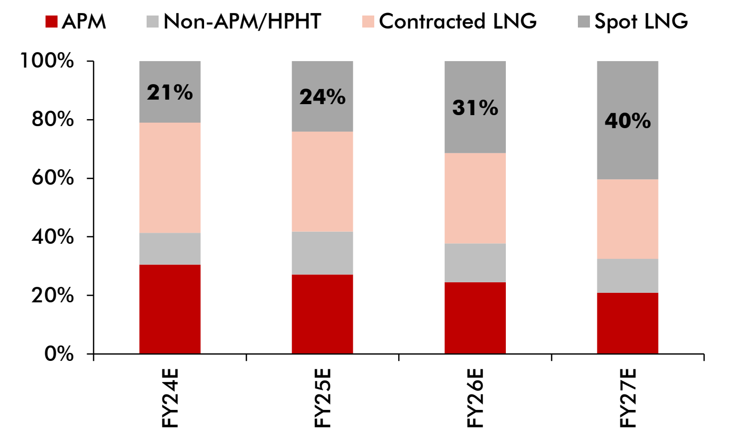
- GGas is more skewed towards industrial volumes among its peers and remains at high risk due to higher exposure to international gas and competition from propane. In our view, effectiveness of Asian spot LNG vs propane going forward would resolve this challenge for the company.
- Priority in HPHT gas allocation and contracted volumes of about 5.0mmscmd consisting of HPHT and RLNG.
- Increasing volumes of CNG in the overall portfolio which has higher margins vs PNG-I&C.

Currently, PNG-I cheaper vs propane in Morbi by about ₹2.5/scm



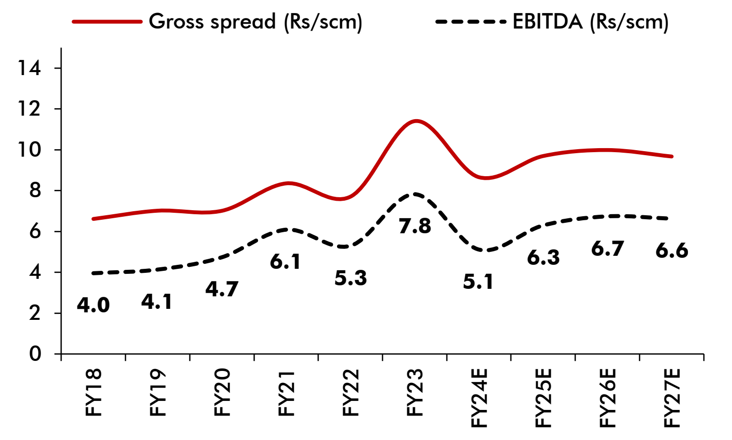
Source: Bloomberg, Company, Ambit Capital research

Exhibit 26: Spot LNG exposure to increase again with revival in industrial volumes...



Source: Company, Ambit Capital research

Exhibit 27: ...however, margins to be above average; EBITDA/scm of ₹6.6 in FY25E-27E vs ₹5.3 in FY18-24E



Source: Company, Ambit Capital research

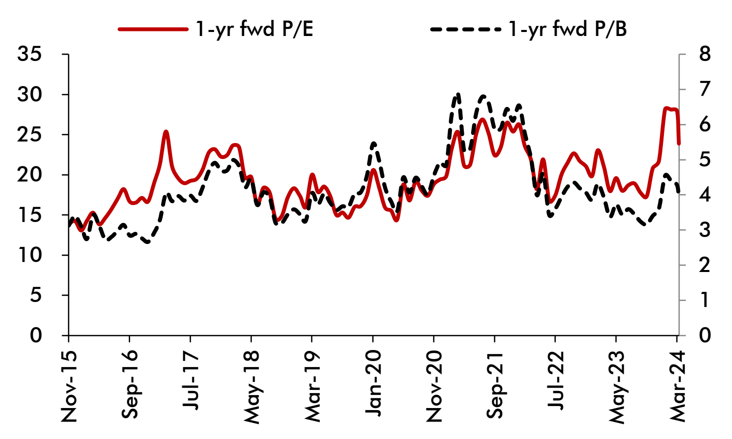
Best play on cheap gas = premium valuations

GGas' valuations moved in tandem with the steep jump in volumes it enjoyed after the NGT ban of coal gasifiers in Morbi. However, unprecedented increase in Asian spot LNG prices after the Russia-Ukraine war and resultant impact on volumes led to a sharp de-rating of GGas. With normalization in gas prices and expectations of resumption of volume growth, valuation multiples recovered since Dec-23. The company trades at 23x adjusted FY26E P/E. We assume volume-led 26% EPS CAGR over FY24E-27E with an average pre-tax RoCE of 21%, and hence see a case for sustained high multiples. We are 8% above consensus for FY25E/FY26E given higher volume and strong margin assumptions, the key catalyst of our BUY stance. Our target valuation of 25x FY26E P/E is at 28% premium to last 10-yr average.

Valuation rebounded sharply from the lows...

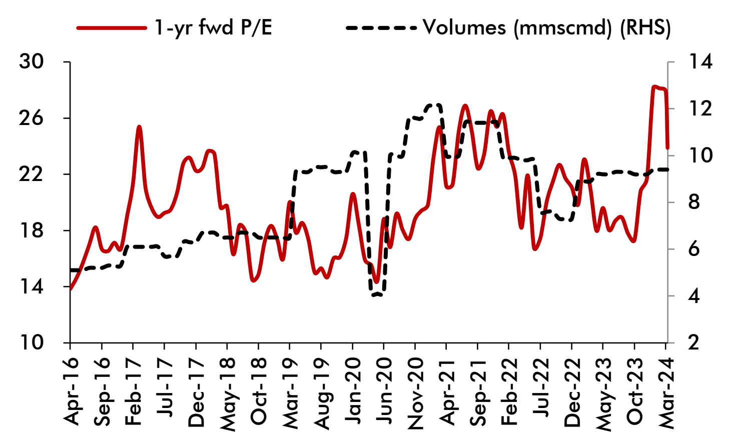
Due to high prices of both domestic and international gas, operations across all segments were under pressure and kept valuations suppressed since the Russia-Ukraine war. This has changed due to softness in global natural gas market starting Dec-23 because of lower demand in the West given mild weather and high storage. 1-year fwd P/E recovered from a low of 16x in Oct-23 to 23x currently, while 1-year fwd P/B recovered to 3.8x from 2.8x.

Exhibit 28: Multiples recovered from lows of last 2 years; 19% premium on 1-yr fwd P/E but near historical on 1-yr fwd P/B



Source: Bloomberg, Ambit Capital research

Exhibit 29: Multiples largely moving in tandem with volumes since 2020, which was not the case before



Source: Company, Bloomberg, Ambit Capital research

...supported by hopes of recovery

We forecast EBITDA CAGR of 22% in FY24E-FY27E, and this would be led by higher volumes and higher margins. Further, the company could incur annual capex of ₹10bn, mainly on account of deeper penetration, from internal cash generation with no need of borrowings. Dividend cover would be about 300% in FY25E-27E which went below 100% in FY24E. Dividend payout was about 10% in FY19-22, and increased to 30% in FY23. Despite aggressive expansion plans, we now expect the company to pay 30% of its earnings to shareholders. GGas should sustain RoE/RoCE at 18%/21% during the next three years.

Exhibit 30: Summary of important operational and financial metrics

Particular	FY18	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E	FY27E
Volumes (mmscmd)										
CNG	1.3	1.4	1.5	1.3	2.0	2.4	2.7	3.0	3.3	3.6
PNG - D	0.5	0.5	0.5	0.6	0.7	0.7	0.7	0.8	0.9	0.9
PNG - C	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
PNG - I	4.3	4.5	7.3	7.4	7.9	5.1	5.7	6.3	7.1	8.2
Total	**6.2**	**6.5**	**9.4**	**9.4**	**10.7**	**8.4**	**9.3**	**10.3**	**11.4**	**12.9**
Per unit metrics (₹/scm)										
Revenue	27.3	32.6	29.9	28.7	42.0	54.8	45.5	45.8	45.7	43.5
COGS	20.7	25.5	22.9	20.4	34.3	43.4	36.9	36.1	35.7	33.8
Gross profit	6.6	7.0	7.0	8.4	7.7	11.4	8.7	9.7	10.0	9.7
Opex	2.7	2.9	2.3	2.3	2.4	3.6	3.5	3.4	3.2	3.0
EBITDA	**4.0**	**4.1**	**4.7**	**6.1**	**5.3**	**7.8**	**5.1**	**6.3**	**6.7**	**6.6**
Ratios										
DPS (₹)	4.0	1.0	1.0	2.0	2.0	7.0	4.0	6.0	8.0	9.0
RoCE (Pre-Tax) (%)	12%	13%	23%	28%	25%	26%	15%	20%	22%	22%
RoE (%)	17%	22%	44%	33%	26%	24%	14%	18%	19%	18%
Net debt/Equity (x)	1.2	0.8	0.4	0.1	0.1	(0.1)	(0.1)	(0.1)	(0.2)	(0.3)
Net debt/EBITDA (x)	2.4	1.8	0.8	0.3	0.3	(0.2)	(0.2)	(0.5)	(0.8)	(1.0)
Dividend Cover (%)	404%	802%	1099%	974%	159%	870%	58%	335%	308%	299%

Source: Company, Ambit Capital research

Valuation methodology

We have used DCF methodology to value GGas and assumed WACC and terminal growth rate of 11% and 5%.

Exhibit 31: DCF valuation summary

Particular	Amount (₹ mn)
Present value of cash flows	205,143
Terminal value	230,958
Total Enterprise value	**436,102**
Less: Net debt (FY25E)	(11,491)
Value to Equity	**447,593**
Fully Diluted equity shares (mn)	688
Value per share (₹)	**650**

Source: Company, Ambit Capital research

Our assumptions factors the following:

- We have changed our previous assumption related to volume growth and build in 12% CAGR for FY24E-27E vs 10%. Also, increased long-term volume growth to 8% vs 6%.
- We haven't changed our margin assumptions. EBITDA/scm would average ₹6.6 in FY25E-27E as well as in the long term. This is higher than average of ₹5.3 in FY18-24E.
- These lead to an increase in target price by 38%.

Exhibit 32: Summary of changes to our estimates, valuation, and target price

Particular (₹ mn)	New estimates			Old estimates			Changes in estimates		
	FY25E	FY26E	FY27E	FY25E	FY26E	FY27E	FY25E	FY26E	FY27E
Rating	**BUY**			**SELL**			**UPGRADED**		
TP (₹)	**650**			**470**			**38%**		
Revenue	171,568	189,665	204,802	162,267	178,147	191,384	6%	6%	7%
EBITDA	23,602	27,973	31,228	22,717	26,722	28,708	4%	5%	9%
PBT	19,305	23,431	26,323	18,174	21,378	22,966	6%	10%	15%
PAT	14,478	17,574	19,742	13,630	16,033	17,225	6%	10%	15%
EPS (₹)	21.0	25.5	28.7	19.8	23.3	25.0	6%	10%	15%

Source: Company, Ambit Capital research

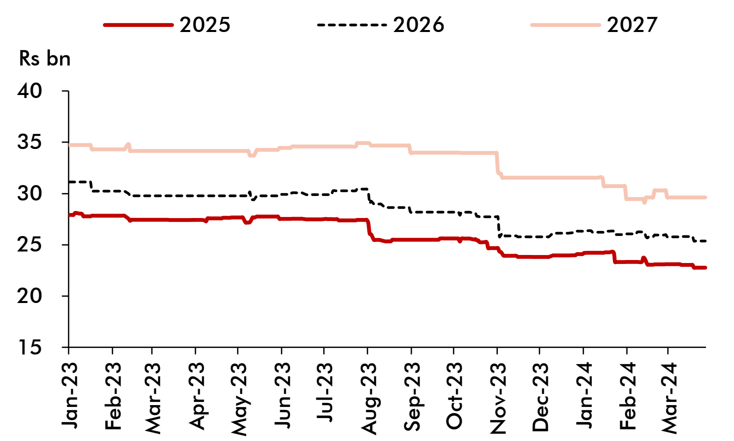
We have compared standalone financials' consensus estimates with ours. We are above consensus for FY25-27E due to higher volume and margin assumptions.

Exhibit 33: Ambit vs consensus

Particular (₹ mn)	Ambit	BBG	Divergence (%)	VA	Divergence (%)
Revenue					
FY25E	171,568	172,193	0%	174,311	-2%
FY26E	189,665	188,634	1%	191,532	-1%
FY27E	204,802	182,910	12%	206,666	-1%
EBITDA					
FY25E	23,602	22,775	4%	21,862	8%
FY26E	27,973	25,370	10%	24,917	12%
FY27E	31,228	29,621	5%	28,989	8%
EPS (₹)					
FY25E	21.0	19.5	8%	19.4	8%
FY26E	25.5	23.6	8%	22.6	13%
FY27E	28.7	27.4	5%	27.4	5%

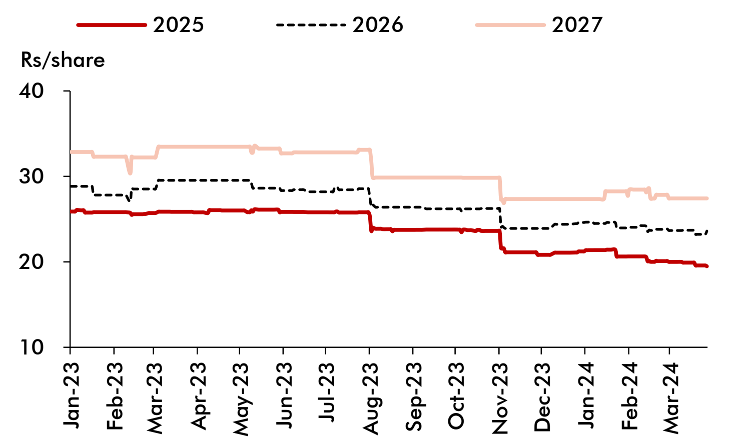
Source: Bloomberg, Visible Alpha, Company, Ambit Capital research

Exhibit 34: Consistent downgrade in EBITDA estimates; trend to reverse...



Source: Bloomberg, Ambit Capital research

Exhibit 35: ...same is the case for EPS in the last one year; expect a reversal



Source: Bloomberg, Ambit Capital research

Catalysts & Risks

Catalysts to our BUY call

- **Higher volume growth:** We expect 11% growth in volume next year due to recovery of industrial volumes as spot LNG remains cheaper vs propane, and expansion of CNG portfolio. Consensus is also building 11% growth.
- **Expansion in new areas:** The company has authorization for 27 GAs, and it is planning to expand its infrastructure in all areas due to growing popularity of natural gas as a fuel and minimum work program regulations.
- **Benign gas prices:** Apart from APM gas, on an annual basis, pricing would decrease for all gas sources, especially Asian spot LNG. This would allow GGas to report margins above historical average as well as management guidance of ₹4.5-5 per scm. We expect EBITDA/scm of ₹6.3 in FY25E vs ₹5.7 of consensus.

Risks to our BUY call

- **Propane prices:** GGas' volumes took a massive hit in FY23 due to attractiveness of propane vs spot LNG. Volumes can remain under pressure if propane becomes attractive again amid lower demand in China for petrochemicals. We expect Asian spot LNG to average US$9.5/MMBtu in FY25E while propane around US$11/MMBtu.
- **Reluctance of customers:** Although customers in Morbi are highly price sensitive, they may become reluctant to shift to LNG in the next one year because of limited benefits and uncertainties.
- **Stringent EV policy:** Considering Delhi as an example as well as increasing popularity of cleaner fuels, Gujarat and other states may announce EV policy.
- **Pressure on margins:** Spot LNG prices can be higher due to multiple factors like severe winter, delay in commissioning of LNG gasification projects, and further reduction in Russian gas supplies to Europe. This would impact margins.

Ambit HAWK

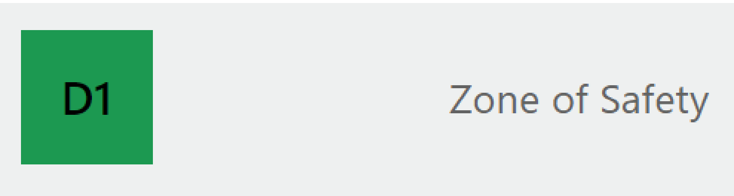
GGas featured in D1 decile (Zone of Safety) on our accounting framework and has been in same zone since last 5 years. GGas's greatness score was 100% and it was featured in 'Zone of Greatness'. We expect it to be in top categories due to improving financials amid volume growth and strong margins.

Exhibit 36: Explanation of forensic accounting score

Segment	Score	Comments
Accounting	GREEN	GGas ranks in D1 on Ambit HAWK since last 5 years. This is due to strong performance on CFO/EBITDA, cash yield, provisions, and miscellaneous expenses. We expect it to maintain high standards and hence assign a GREEN rating.
Predictability	AMBER	Several macro factors and regulatory issues continue to impact GGas operations. Hence, we assign an AMBER rating.
Earnings Momentum	GREEN	In the last 6 months, consensus has cut EBITDA/EPS estimates for FY25/26E. We believe that consensus is yet to incorporate improving volume outlook and earnings are expected to rise supported by both volumes and margins.

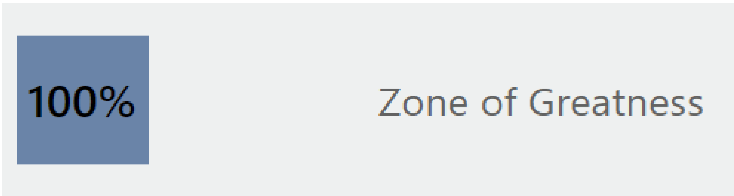
Source: Company, Ambit Capital research

Exhibit 37: Forensic Accounting Decile



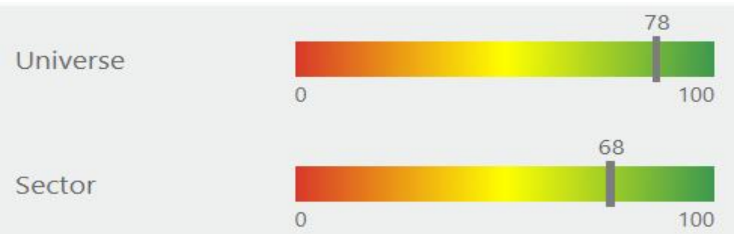
Source: Ambit HAWK, Company

Exhibit 38: Greatness Score



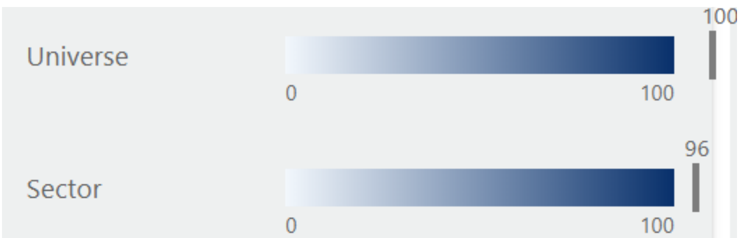
Source: Ambit HAWK, Company

Exhibit 39: Forensic Score Percentile



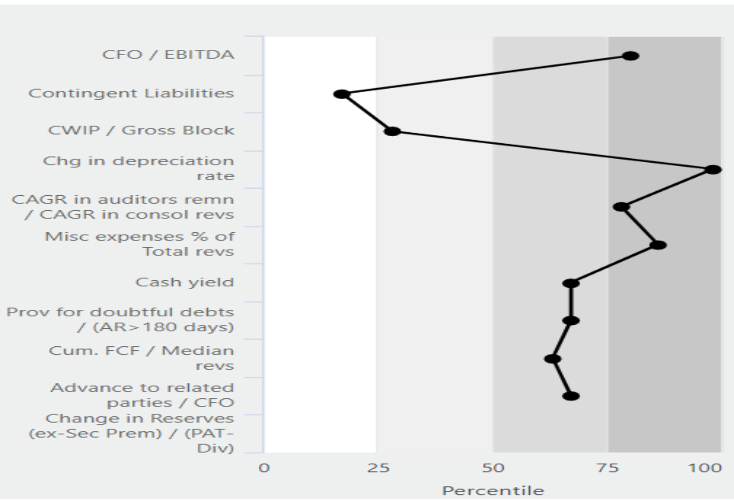
Source: Ambit HAWK, Company

Exhibit 40: Greatness Score Percentile



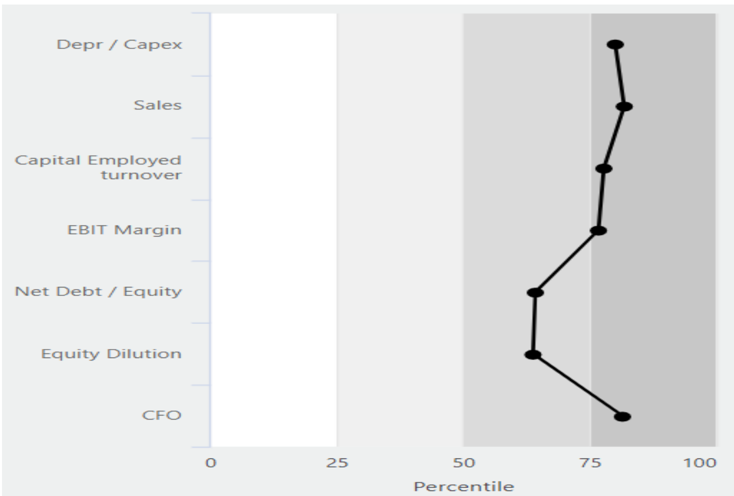
Source: Ambit HAWK, Company

Exhibit 41: Forensic Accounting Contributors



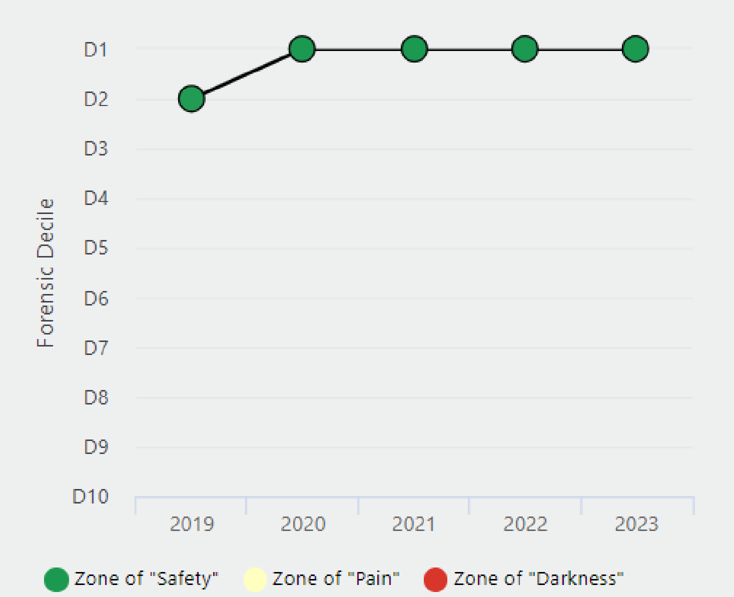
Source: Ambit HAWK, Company

Exhibit 42: Greatness Score Contributors



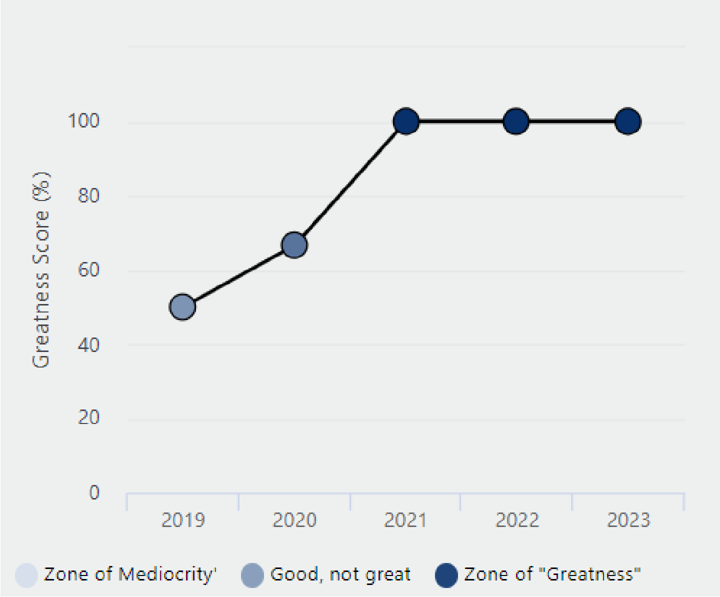
Source: Ambit HAWK, Company

Exhibit 43: Forensic Score – Evolution



Source: Ambit HAWK, Company

Exhibit 44: Greatness Score – Evolution



Source: Ambit HAWK, Company

Gujarat Gas (GUJGA IN, BUY)

Valuation Methodology

We value Gujarat Gas using the DCF valuation methodology, and arrive at our target price of ₹650 taking into consideration free cash flows till FY40E with terminal growth rate of 5% and WACC of 11%. We value company at 25x FY26E P/E which is at 28% premium to last 10-yr average.

Risks

1) Lower volume growth as industrial customers becomes reluctant to shift to LNG because of limited benefits and uncertainties, 2) Difficulty in infrastructure expansion in new GAs, 3) Stringent EV policy, 4) Pressure on margins due to high gas prices and lower APM allocation.

Financials - Standalone

Income statement

Year to March (₹ mn)	FY22	FY23	FY24E	FY25E	FY26E	FY27E
Revenues	**164,562**	**167,594**	**154,115**	**171,568**	**189,665**	**204,802**
% growth	67.0%	1.8%	-8.0%	11.3%	10.5%	8.0%
Operating expenditure	143,799	143,674	136,795	147,966	161,692	173,574
EBITDA	**20,763**	**23,920**	**17,320**	**23,602**	**27,973**	**31,228**
% growth	-0.6%	15.2%	-27.6%	36.3%	18.5%	11.6%
Depreciation	3,849	4,283	4,731	5,100	5,400	5,821
EBIT	**16,914**	**19,637**	**12,589**	**18,502**	**22,573**	**25,407**
Interest expenditure	568	404	296	300	300	300
Non-operating income	907	1,013	1,050	1,103	1,158	1,216
Adjusted PBT	**17,253**	**20,247**	**13,344**	**19,305**	**23,431**	**26,323**
Tax	4,278	4,992	3,407	4,826	5,858	6,581
Adjusted PAT before MI	**12,975**	**15,255**	**9,937**	**14,478**	**17,574**	**19,742**
Minority interest	-	-	-	-	-	-
Adjusted PAT after MI	**12,975**	**15,255**	**9,937**	**14,478**	**17,574**	**19,742**
Diluted EPS (₹)	18.7	22.2	14.4	21.0	25.5	28.7

Source: Ambit Capital research, Company

Balance sheet

Year to March (₹ mn)	FY22	FY23	FY24E	FY25E	FY26E	FY27E
Shareholders' equity	1,377	1,377	1,377	1,377	1,377	1,377
Reserves and surpluses	54,616	68,579	73,939	85,435	98,664	113,132
Total net worth	**55,993**	**69,956**	**75,316**	**86,812**	**100,041**	**114,509**
Debt	6,289	1,523	1,523	1,523	1,523	1,523
Deferred tax liability	8,077	8,461	8,396	8,396	8,396	8,396
Total liabilities	**70,359**	**79,940**	**85,234**	**96,731**	**109,960**	**124,428**
Net block	66,563	73,619	78,888	83,788	88,388	92,567
CWIP	9,672	9,589	9,589	9,589	9,589	9,589
Investments (non-current)	224	304	304	304	304	304
Cash & cash equivalents	211	6,810	5,404	13,014	22,694	33,863
Debtors	9,301	10,212	8,445	9,401	10,393	11,222
Inventory	534	612	844	940	1,039	1,122
Loans & advances	65	66	61	67	74	80
Other Current Assets	8,984	7,740	8,445	9,401	10,393	11,222
Total current assets	**19,094**	**25,439**	**23,199**	**32,824**	**44,593**	**57,510**
Current liabilities	24,327	28,187	25,988	28,931	31,982	34,535
Provisions	867	824	758	843	932	1,007
Total current liabilities	**25,194**	**29,011**	**26,745**	**29,774**	**32,915**	**35,541**
Net current assets	**(6,100)**	**(3,572)**	**(3,546)**	**3,050**	**11,679**	**21,968**
Total assets	**70,359**	**79,940**	**85,234**	**96,731**	**109,960**	**124,428**

Source: Ambit Capital research, Company

Cash flow statement

Year to March (₹ mn)	FY22	FY23	FY24E	FY25E	FY26E	FY27E
Net profit before tax	17,134	20,247	13,344	19,305	23,431	26,323
Depreciation	3,849	4,283	4,731	5,100	5,400	5,821
Others	93	(194)	296	300	300	300
Tax	(4,363)	(4,608)	(3,407)	(4,826)	(5,858)	(6,581)
(Incr)/decr in net working capital	(95)	4,052	(1,431)	1,014	1,051	879
CFO	**16,618**	**23,780**	**13,534**	**20,892**	**24,325**	**26,742**
Capex (net)	(13,663)	(10,865)	(10,000)	(10,000)	(10,000)	(10,000)
(Incr)/decr in investments	398	(47)	-	-	-	-
Others	329	499	-	-	-	-
CFI	**(12,935)**	**(10,413)**	**(10,000)**	**(10,000)**	**(10,000)**	**(10,000)**
Net borrowings	(4,378)	(5,024)	-	-	-	-
Interest paid	(531)	(381)	(296)	(300)	(300)	(300)
Dividend paid	(1,375)	(1,379)	(4,578)	(2,982)	(4,345)	(5,274)
CFF	**(6,284)**	**(6,784)**	**(4,874)**	**(3,282)**	**(4,645)**	**(5,574)**
Net change in cash	(2,602)	6,583	(1,340)	7,610	9,680	11,169
Cash profit/(loss)	**2,955**	**12,915**	**3,534**	**10,892**	**14,325**	**16,742**

Source: Ambit Capital research, Company

Ratio Analysis

Year to March	FY22	FY23	FY24E	FY25E	FY26E	FY27E
EBITDA margin (%)	12.6%	14.3%	11.2%	13.8%	14.7%	15.2%
Net prof. margin (%)	7.9%	9.1%	6.4%	8.4%	9.3%	9.6%
Dividend payout ratio (%)	11%	30%	30%	30%	30%	30%
RoCE (pre-tax) (%)	25.4%	26.1%	15.2%	20.3%	21.8%	21.7%
RoE (%)	25.7%	24.2%	13.7%	17.9%	18.8%	18.4%
Book value per share (₹)	81.3	101.6	109.4	126.1	145.3	166.3
P/E (x)	29.3	24.7	37.9	26.0	21.4	19.1
P/BV (x)	6.7	5.4	5.0	4.3	3.8	3.3
EV/EBITDA (x)	17.6	15.3	21.1	15.5	13.1	11.7
EV/EBIT (x)	21.6	18.6	29.0	19.7	16.2	14.4

Source: Ambit Capital research, Company

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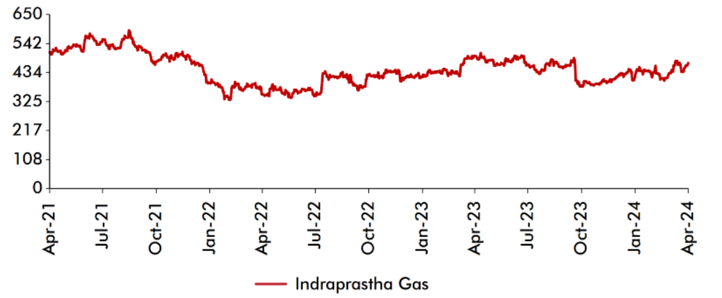
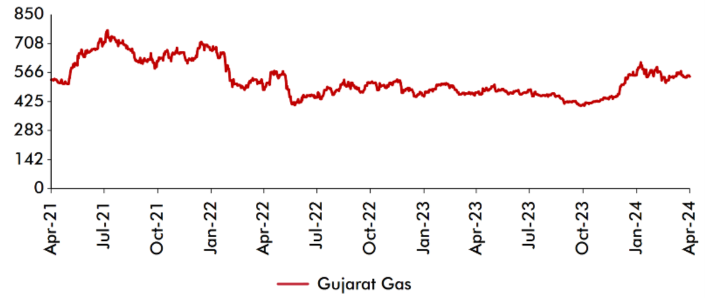
Indraprastha Gas (IGL IN, SELL, CMP: *Rs 469*)



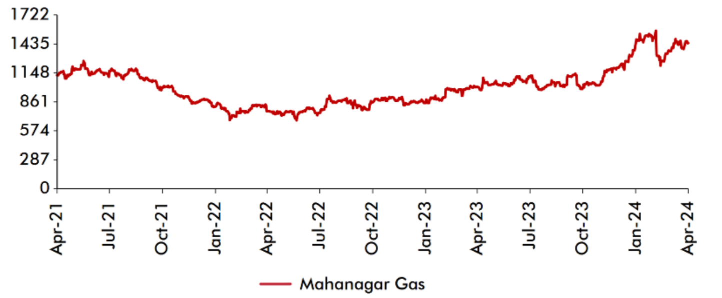
Source: ICE, Ambit Capital research

Gujarat Gas (GUJGA IN, BUY, CMP: Rs 547)



Source: ICE, Ambit Capital research

Mahanagar Gas (MAHGL IN, SELL, CMP: Rs 1,444)



Source: ICE, Ambit Capital research

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Investment Rating	Expected return (over 12-month)
BUY	We expect this stock to deliver more than 10% returns over the next12 month
SELL	We expect this stock to deliver less than or equal to 10 % returns over the next 12 months
UNDER REVIEW	We have coverage on the stock but we have suspended our estimates, TP and recommendation for the time being NOT
NOT RATED	We do not have any forward-looking estimates, valuation, or recommendation for the stock.

Note: At certain times the Rating may not be in sync with the description above as the stock prices can be volatile and analysts can take time to react to development.

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