

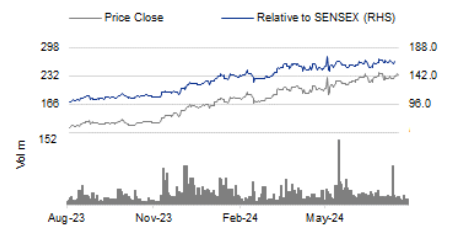
India

**ADD** (no change)

Consensus ratings\*: Buy 22 Hold 3 Sell 10

|                              |              |
|------------------------------|--------------|
| Current price:               | Rs237        |
| Target price: ▲              | Rs261        |
| Previous target:             | Rs121        |
| Up/downside:                 | 10.1%        |
| InCred Research / Consensus: | 8.8%         |
| Reuters:                     |              |
| Bloomberg:                   | GAIL IN      |
| Market cap:                  | US\$21,434m  |
|                              | Rs1,556,458m |
| Average daily turnover:      | US\$70.6m    |
|                              | Rs5124.8m    |
| Current shares o/s:          | 6,575.1m     |
| Free float:                  | 34.7%        |

\*Source: Bloomberg



Source: Bloomberg

| Price performance | 1M  | 3M   | 12M   |
|-------------------|-----|------|-------|
| Absolute (%)      | 7.7 | 13.4 | 110.2 |
| Relative (%)      | 7.5 | 3.8  | 69.7  |

| Major shareholders | % held |
|--------------------|--------|
| President of India | 51.9   |
| LICI Ulip          | 8.4    |
| SBI MF             | 5.0    |

# GAIL India

## Volume tailwind & tariff hike to boost EPS

- Gas demand from the CGD and power sectors drives ~8.4% growth for GAIL.
- Implementation of NGG, coupled with improving sourcing efficiency via S2S methodology will lead to margin protection & a 50% decrease in freight costs.
- Consol. EPS & EBITDA are likely to post more than a 13% CAGR over FY24F-31F. We retain ADD rating on the stock with a higher target price of Rs261.

### GAIL all set for 8.4% CAGR in gas transmission over FY24-31F

The Indian government's ambitious plan to increase the share of natural gas in the energy mix from 5.7% to 15% by FY31F highlights the immense growth potential in the gas transmission business. The implementation of the National Gas Grid (NGG) and the Unified Tariff Regime (UTR) will further enhance gas accessibility, ensuring uniform transportation costs across regions. Additionally, GAIL India is set to benefit from an expected tariff hike of Rs8-10/scm due to discrepancy in compression gas costs, enabling the company to charge a higher tariff. The company has also secured strategic long-term LNG supply contracts, including deals with ADNOC and Vitol, along with a 20-year agreement with Qatar Energy, achieving savings of US\$0.8/mmBtu. These developments are expected to drive GAIL India's transmission volume to post a CAGR of 8.4% over FY24-FY30F, reinforcing its leadership in the gas transmission market and capitalizing on India's growing demand for natural gas.

### With a 48% market share, GAIL poised for 7% CAGR in sales volume

GAIL India's gas marketing business achieved a remarkable feat in FY24, recording its highest-ever natural gas sales at 98.45mmscmd, thereby securing a dominant 48% share of India's domestic market. GAIL India supplies approximately 67% of the natural gas consumed by India's fertilizer sector, serving major customers like Matix and HURL (Hindustan Urvarak and Rasayan) plants in Gorakhpur, Sindri, and Barauni. The outlook for the company remains robust, with gas volume expected to post a CAGR of 6-7% over FY24-FY30F, driven by continued expansion in city gas distribution or CGD and power sectors. GAIL India has expertly leveraged strategic destination and basis swaps within its LNG portfolio, shifting from its focus on mitigating volume risks to creating substantial value. GAIL India has revolutionized LNG transport with the introduction of ship-to-ship (STS) transfers. This cutting-edge technique has significantly cut transportation costs & emissions by up to 50%.

### Volume tailwind ahead; retain ADD rating with a higher TP of Rs261

The volume growth trajectory is promising for GAIL India, paving the way for a rise in its earnings. We have valued the stock at its 10-year historical 1SD, retaining our ADD rating on it with a higher target price of Rs261 (Rs121 earlier). The downside risks could arise from a rapid rise in LNG prices or any change in the government's policy for the sector, particularly for CGD companies.

### Research Analyst(s)



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### Financial Summary

|                                   | Mar-22A | Mar-23A   | Mar-24F   | Mar-25F   | Mar-26F   |
|-----------------------------------|---------|-----------|-----------|-----------|-----------|
| Revenue (Rsm)                     | 927,698 | 1,456,683 | 1,332,285 | 1,363,952 | 1,436,532 |
| Operating EBITDA (Rsm)            | 151,516 | 73,731    | 142,963   | 157,408   | 178,448   |
| Net Profit (Rsm)                  | 120,018 | 57,900    | 99,064    | 110,191   | 125,281   |
| Core EPS (Rs)                     | 24.3    | 6.8       | 13.1      | 14.7      | 17.0      |
| Core EPS Growth                   | 126.1%  | (72.0%)   | 91.4%     | 13.0%     | 15.6%     |
| FD Core P/E (x)                   | 8.76    | 26.88     | 15.71     | 14.13     | 12.42     |
| DPS (Rs)                          | 9.0     | 4.7       | 5.5       | 6.7       | 7.6       |
| Dividend Yield                    | 3.80%   | 1.97%     | 2.33%     | 2.83%     | 3.22%     |
| EV/EBITDA (x)                     | 7.21    | 22.92     | 12.08     | 10.87     | 9.37      |
| P/FCFE (x)                        | 46.38   | (17.80)   | 55.07     | (30.25)   | 104.26    |
| Net Gearing                       | 6.0%    | 20.2%     | 21.9%     | 18.6%     | 12.5%     |
| P/BV (x)                          | 1.64    | 2.40      | 2.02      | 1.86      | 1.68      |
| ROE                               | 18.4%   | 6.9%      | 12.1%     | 12.1%     | 12.7%     |
| % Change In Core EPS Estimates    |         |           | (4.47%)   | (22.58%)  | (24.37%)  |
| InCred Research/Consensus EPS (x) |         |           |           |           |           |

SOURCE: INCRED RESEARCH, COMPANY REPORTS

# Volume tailwind & tariff hike to boost EPS

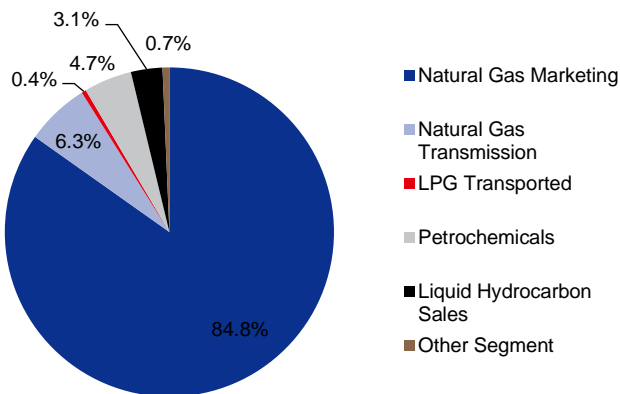
## Business overview

GAIL India is a leading natural gas company in India, encompassing a wide range of activities throughout the natural gas value chain.

### Key activities

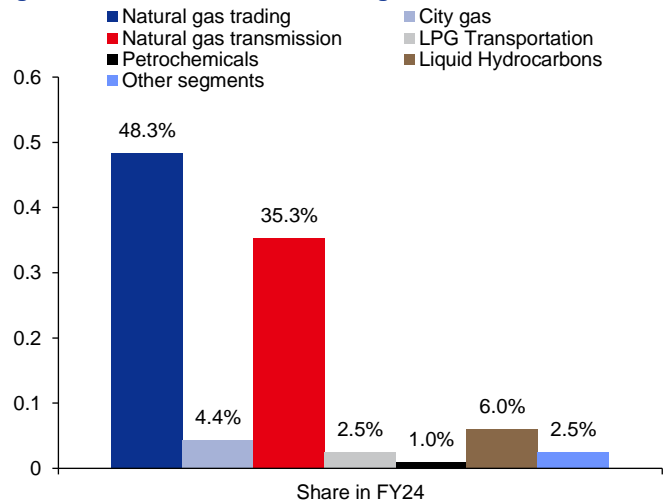
- **Gas trading:** GAIL India imports and trades both liquefied natural gas (LNG) and domestic natural gas, playing a crucial role in India's energy security.
- **Gas transmission:** The company manages an extensive pipeline network across India, facilitating the transportation of natural gas from production sites to end-users.
- **Marketing and distribution:** GAIL India provides natural gas directly to major consumers such as power plants and other industries, and partners with distributors to supply smaller consumers through city gas networks.
- **Exploration and production (E&P):** The company explores new natural gas resources both within India and globally to enhance its supply capabilities.
- **Petrochemicals:** GAIL India invests in petrochemical plants that manufacture a range of products including fertilizers, plastics, and chemicals.
- **Other services:** The company offers additional services such as pipeline construction, city gas infrastructure development, and technical consulting.

Figure 1: ~85% of revenue comes from the marketing segment



SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 2: ~35% of PBT comes from gas transmission business



SOURCE: INCRED RESEARCH, COMPANY REPORTS

## Long-term sourcing contracts of GAIL India

### Diversified sourcing with ~75% sales to fertilizer, power, and CGD sectors

For the gas transmission business, GAIL India sources 75% from the domestic fields and 25% from R-LNG and for the marketing business, only ~39% is sourced from the domestic fields whereas ~61% is sourced from R-LNG. In total sales, the fertilizer sector accounts for 38%, power sector 10%, and CGD sector 25%.

### GAIL India's LNG portfolio grows to 15.53mtpa with two new 10-year 2.53mtpa deals with Adnoc and Vitol, respectively

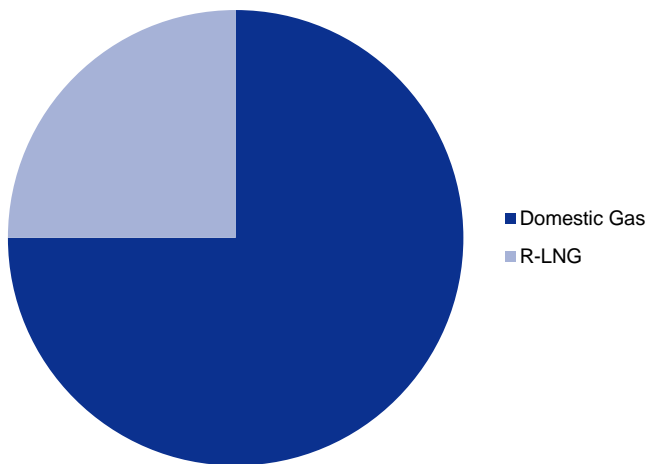
GAIL India has reinforced its status as a leading global LNG player with a portfolio of 15.53mtpa sourced from major suppliers like the US, Qatar, Russia, UAE, Singapore, and Australia.

The company recently inked two 10-year LNG supply agreements: 1mmtpa from Vitol, Singapore, and 0.53mmtpa from ADNOC Gas, UAE, commencing from 2026F. Along with that, the company has started getting 2.85mmtpa Gazprom gas too, which was stuck post Russia-Ukraine crisis.

**GAIL India secures US\$0.8/mmBtu savings via the new 20-year LNG deal with Qatar Energy**

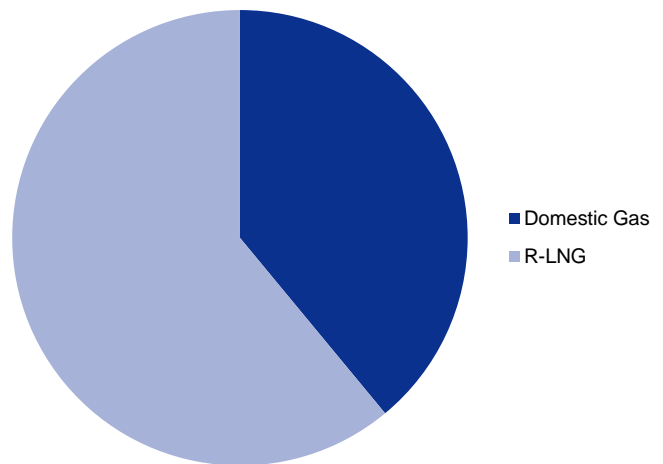
Additionally, GAIL India will offtake 4.5mmtpa from a renewed 20-year LNG SPA with Qatar Energy LNG, beginning in 2028F. Notably, this renegotiated agreement has saved the company at least US\$0.8/mmBtu by removing US\$0.5 fixed term and negotiating US\$0.3 savings from FOB (free on board) to DES (delivered ex-ship) terms.

Figure 3: Sourcing mix in gas transmission business



SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 4: Sourcing mix in gas marketing business



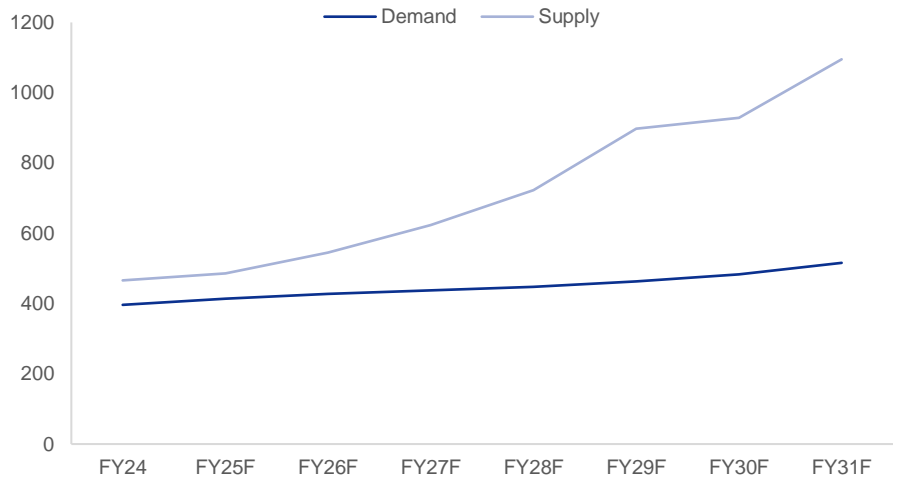
SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Industry outlook- natural gas ➤**

**LNG trade surges as Asia drives demand amid global energy shift**

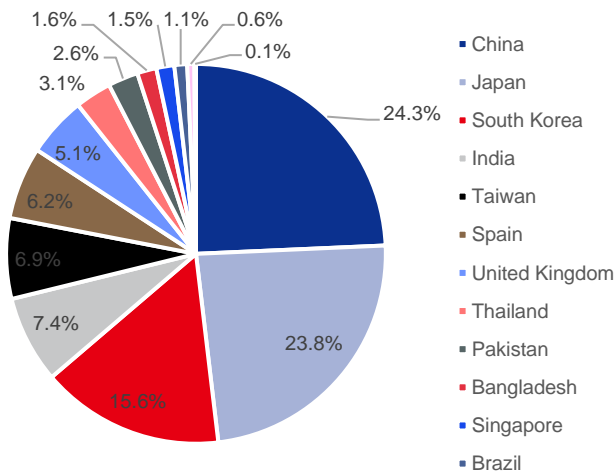
Globally, gas holds a 23.3% share in the primary energy mix, with demand remaining stable in 2023. As developed countries’ focus on renewable energy to meet net-zero target, their gas demand is expected to decline. Meanwhile, gas consumption will rise in the developing world, which represents 80% of the global population and has longer net-zero timeline. LNG trade is gaining prominence, with the US leading as the top LNG supplier. Asia is expected to drive demand growth with a CAGR of ~15%, with India currently ranking as the fourth-largest LNG importer. LNG now accounts for 59% of globally traded gas.

Figure 5: World LNG demand and supply projections



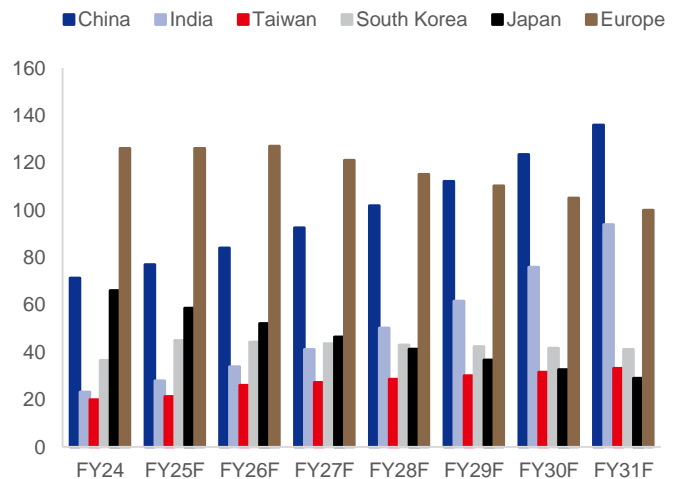
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 6: ~75% of LNG is imported by China, Japan, South Korea & India



SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 7: LNG consumption projections of major nations



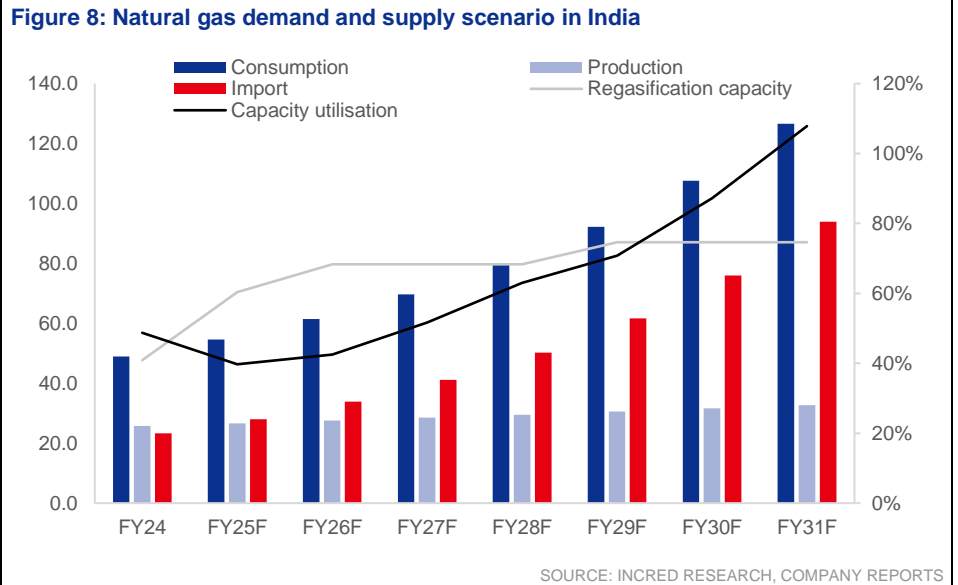
SOURCE: INCRED RESEARCH, COMPANY REPORTS

### India's robust natural gas outlook: Infrastructure, demand, and policy support

- In 2023-24, gas demand surged across sectors due to increased domestic production and low spot LNG prices, leading to an 11% rise in overall gas supply. Domestic production, contributing 6% to this growth, is expected to peak by 2027F-28F, fueled by offshore developments.
- India is securing new long-term LNG contracts to hedge against spot market volatility, with demand expected to double by 2040F. Major players like Indian Oil Corporation, GAIL India, and Petronet LNG have secured significant contracts, ensuring a stable supply pipeline.
- The government aims to boost natural gas's share in the energy mix from 5.7% to 15%, which would increase consumption from 188mmscmd to 500mmscmd.
- Consumption patterns are shifting, with the CGD sector now the second-largest gas consumer, surpassing the power sector. The next demand wave is expected from refineries, chemical industries, and iron and steel plants, supported by the completion of the National Gas Grid (NGG).
- India's power sector reached a milestone in May 2024 by meeting a record maximum power demand of 250GW, with peak power demand projected to exceed 350GW by 2030F, driven by urbanization, industrial growth, and

erratic weather patterns. Natural gas is poised to play a key role in providing clean, affordable energy. India's gas-based power generation is minimal at 6%, compared to 43% in the US, highlighting significant growth potential.

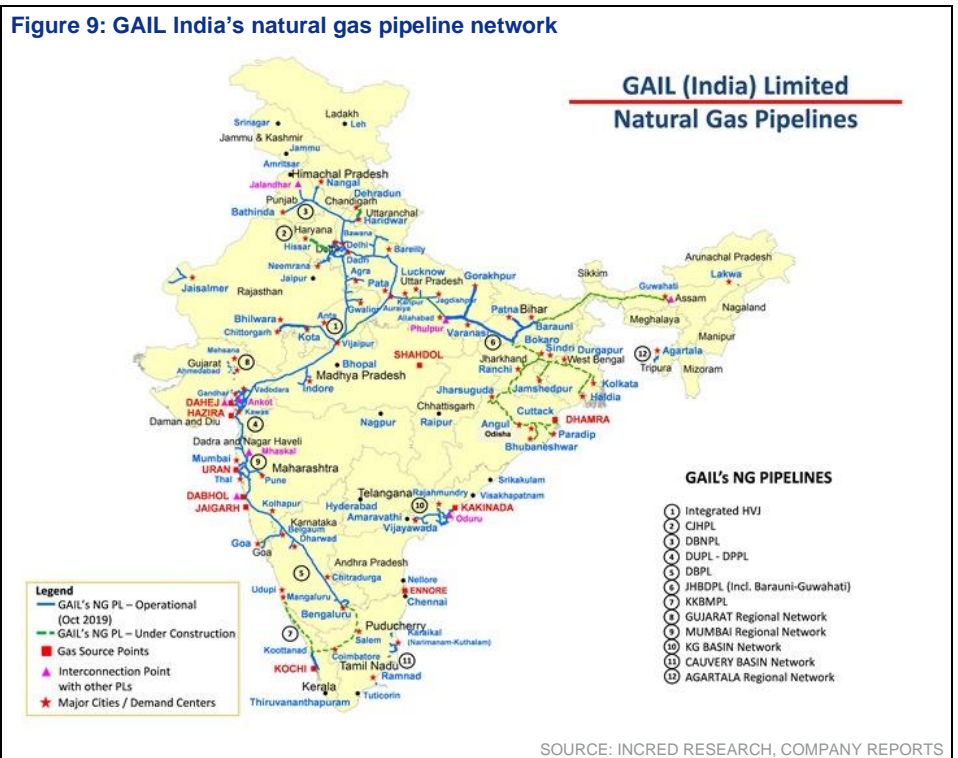
- The potential inclusion of natural gas in the Good and Services Tax or GST could further boost demand, particularly among MSMEs and SMEs, by offering input tax credits.



## Natural gas transmission

### GAIL India expands its natural gas pipeline network to 16,243 km across 20 states and 3 Union territories

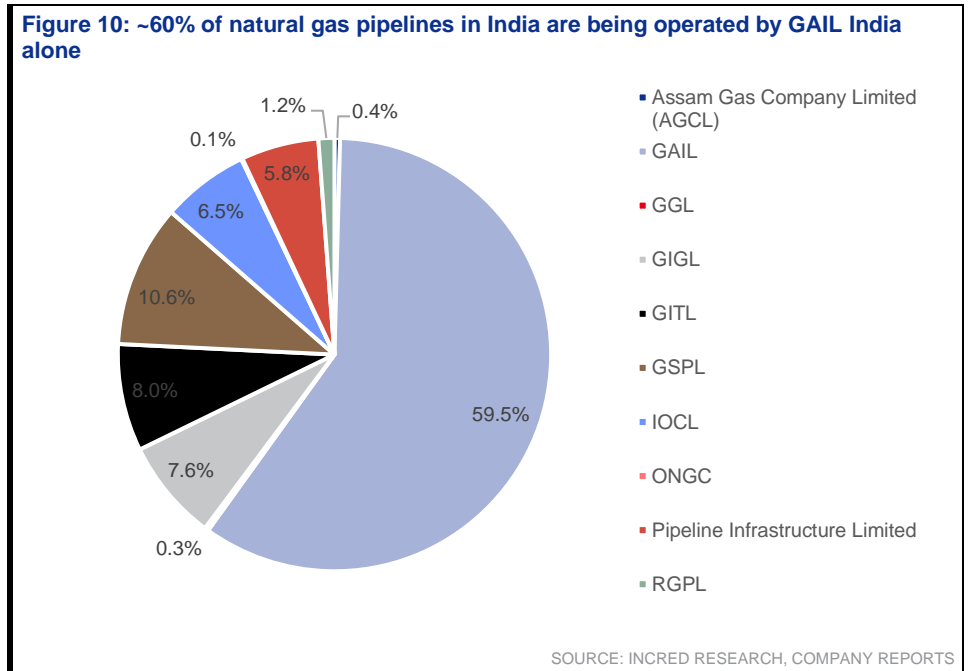
GAIL India has significantly expanded its natural gas pipeline network to approximately 16,243 km, with a capacity of 209.51mmscmd. This extensive network now spans 20 states, including major regions like Gujarat, Maharashtra, and Tamil Nadu, as well as 3 Union territories—Delhi, Puducherry, and Dadra Nagar Haveli.



## GAIL India hits a record high in gas transmission, boosting its revenue by 54.5% in FY24

In FY24, GAIL India achieved a record high in natural gas transmission, with an average flow of 120.46mmscmd, marking a 12% increase from the previous year's 107.28mmscmd. This surge, along with an upward revision in tariff, contributed to a 54.5% rise in revenue from the natural gas transmission segment in FY24. GAIL India now holds a commanding ~65% share in India's natural gas transmission market.

**Figure 10: ~60% of natural gas pipelines in India are being operated by GAIL India alone**

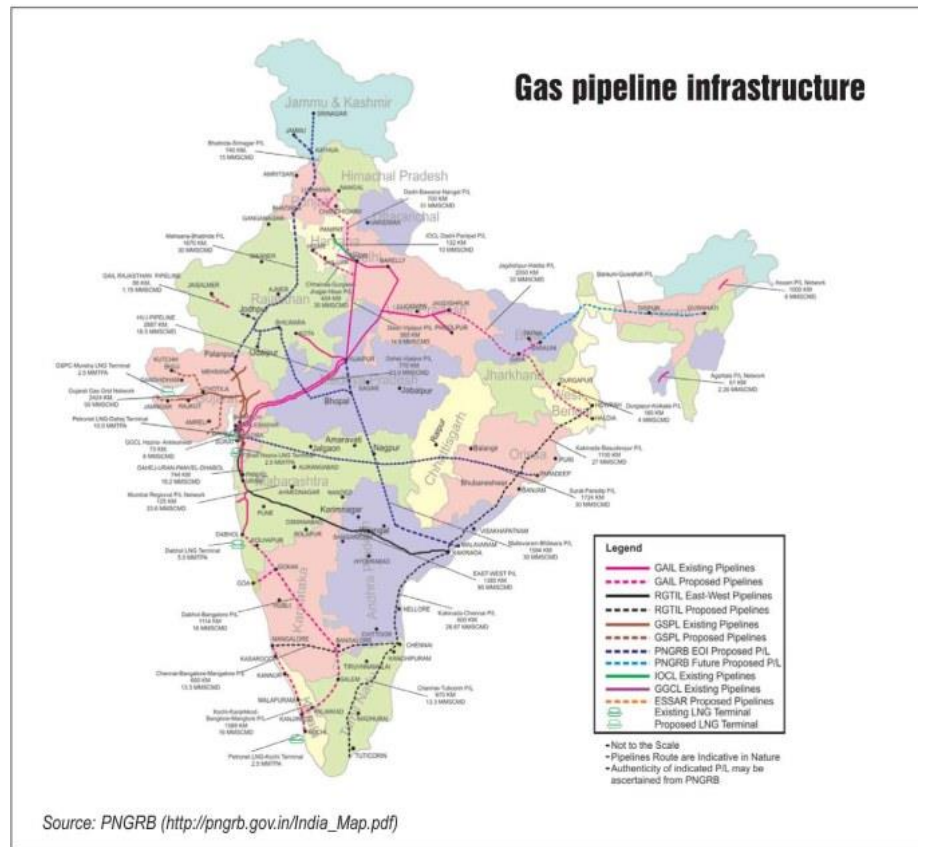


## 'One Nation - One Grid' boosts gas accessibility nationwide

India's 'One Nation - One Grid' program is advancing, with new pipelines set to create a fully interconnected network across the country. This expansion will boost gas supply reliability and ensure consistent access nationwide, supporting India's energy infrastructure goals. This, coupled with recent implementation of a unified tariff for natural gas, is set to boost gas penetration, particularly in East India, by equalizing transportation costs across distances exceeding 1,200km. This change aims to make natural gas more accessible to remote areas, reducing disparities caused by distance from the source. Currently, only ~10% of gas volume remains outside the unified network, primarily from large volume in the KKMBPL and KG Basin, and smaller networks, like those in the Agartala region, totalling around 9-10mmscmd.



**Figure 11: Operational, under-construction and proposed natural gas pipelines in India**

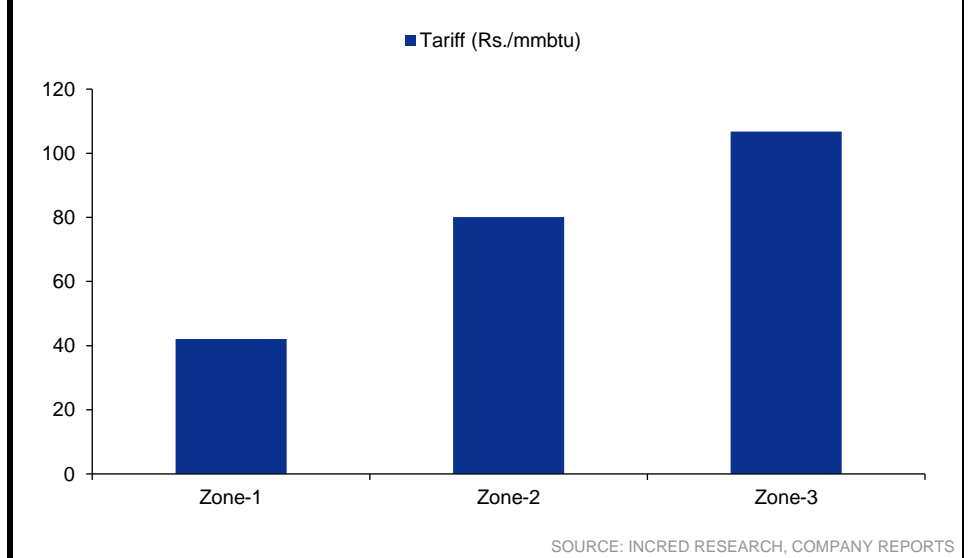


SOURCE: INCRED RESEARCH, COMPANY REPORTS

### The new Unified Gas Tariff regime criticized for cost redistribution inequalities

Under the unified gas tariff regime, transport of natural gas has been divided into zones, namely Zone-1 (<300km from the source), Zone-2 (300-1,200km from the source) and Zone-3 (>1,200km from the source). Earlier, different pipeline operators used to have different tariff for different pipelines and distances. However, the new regime has drawn criticism for potentially unfairly redistributing costs. Critics argue that it disadvantages consumers near the gas source, who now subsidize those further away. For instance, a urea plant in Gujarat, close to the gas source, benefits from lower gas costs but faces higher costs to transport urea to major consumption areas. Conversely, a plant in Uttar Pradesh, farther from the gas source, pays more for gas transport but benefits from lower distribution costs for the end product. This natural balance suggests the field was already level, raising concerns about the fairness of the new unified tariff structure.

**Figure 12: New gas tariff structure under unified tariff regime**

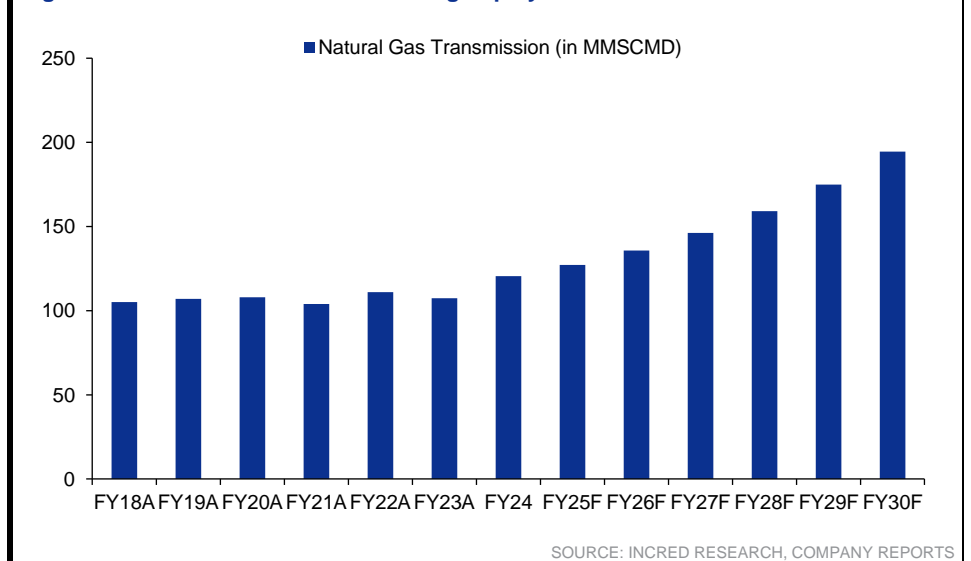


**GAIL India has challenged the PNGRB compression cost input, potential Rs8-10/scm transmission tariff hike looms**

- Integrated tariff calculation is done using a weighted average of individual pipeline tariff. It includes total revenue requirements (TRR) like operation, maintenance, and compression costs to offset the effects of pipeline age (old vs. new) and operator in the natural gas transport.
- GAIL India uses 1.4mmscmd of gas for compression in its transmission operations. After the deallocation of administered pricing mechanism or APM gas, the compression costs surged from US\$6-7/mmBtu to US\$12-13/mmBtu until the allocation of HTPT gas at US\$8.51/mmBtu. Despite this, the government still factors in a compression cost of US\$3.8/mmBtu in the integrated tariff calculation.
- Due to this discrepancy, the issue is currently under legal review, and any tariff revision could increase GAIL India’s transmission tariff by Rs8-10/scm.

**Gas transmission volume to go up by 8.4% CAGR over FY24-30F**

**Figure 13: Gas transmission volume to go up by 8.4% CAGR over FY24-30F**





## Natural gas marketing

### **GAIL India hits record natural gas sales in FY24, securing 48% of India's domestic market**

In FY24, GAIL India achieved its highest-ever natural gas sales, touching 98.45mmscmd, up from 94.91mmscmd in the previous year. The company continues to hold a significant share, commanding approximately 48% of India's domestic gas market.

### **GAIL India powers India's fertilizer and energy sectors, supplying 67% of fertilizer and 43% of the power sector's natural gas requirement in FY24**

- Fertilizer Sector: GAIL India supplied approximately 67% of the natural gas consumed in India's fertilizer sector during FY24. Key clients included Matix Fertilizers & Chemicals, and Hindustan Urvarak & Rasayan (HURL) plants in Gorakhpur, Sindri, and Barauni, supporting their commercial urea production.
- Power Sector: GAIL India provided around 43% of the gas used by gas-based power plants across the country in FY24. The company has played a crucial role in reviving several stranded power units through successful collaborations with power producers including NTPC, etc.

### **GAIL India mitigates volume risks with strategic LNG marketing, achieving over 8mmscmd from Henry Hub**

Initially, GAIL India's focus was on mitigating volume risks by marketing LNG on back-to-back contracts, particularly when domestic demand was lower. For example, from 5.8mtpa of Henry Hub gas, GAIL India has successfully marketed over 8mmscmd, securing margins that vary across contracts.

### **GAIL India shifts focus to the domestic market, utilizing international gas sourcing to meet surging local demand**

In recent years, as domestic demand surged, GAIL India shifted its strategy from primarily overseas marketing to fulfilling domestic needs. This shift allowed the company to utilize its international gas sourcing entirely within the domestic market, reducing the need for long-term swaps that were previously used to manage volume risks.

### **GAIL India leverages strategic swaps to optimize value, enhancing returns from its LNG portfolio**

Today, GAIL India employs swaps not just for volume risk mitigation but as a strategic tool to optimize value, especially in a more dynamic market environment. Nearly every alternate cargo is now swapped to create additional value, a significant change from the past when swaps were used more conservatively over longer periods. This approach has contributed to a noticeable increase in value generation from the company's LNG portfolio.

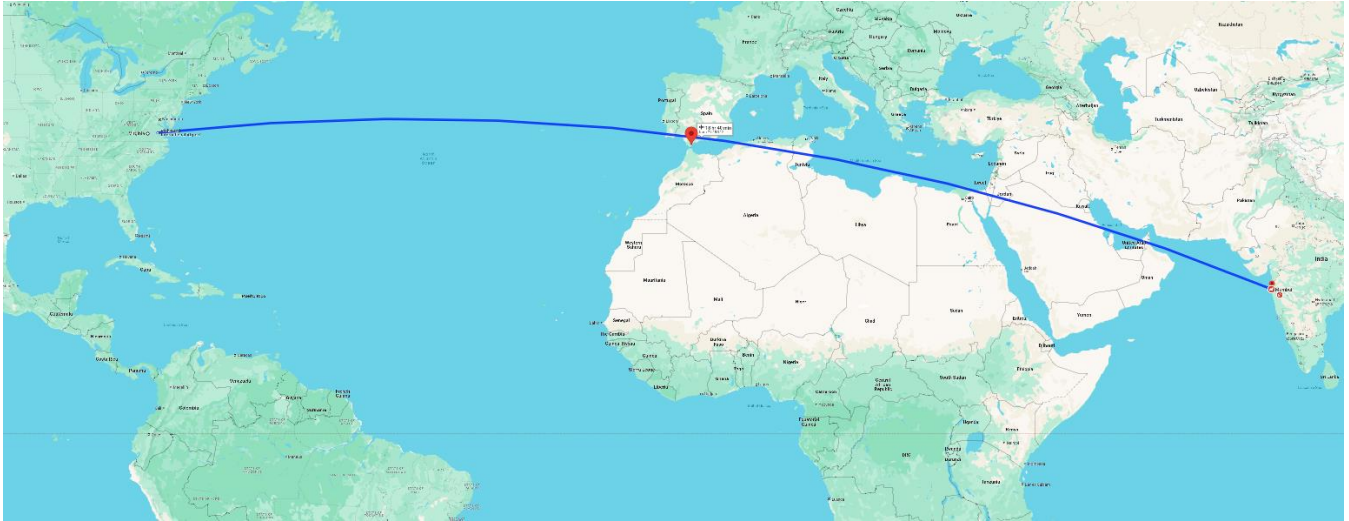
### **GAIL India revolutionizes LNG transport with ship-to-ship transfers, slashing costs and emissions by up to 50%**

In Jun 2023, GAIL India introduced a groundbreaking ship-to-ship (STS) LNG transfer operation near Gibraltar, exemplifying its commitment to cost efficiency and environmental responsibility. By splitting LNG cargo between two chartered vessels mid-journey, the company reduced overall shipping time, fuel consumption, and carbon emissions. This innovative approach lowered the transportation cost from US\$2-2.5/mmBtu to US\$1-1.5/Btu.

- Old Model (Traditional Direct Shipping) - Previously, GAIL India would charter a single vessel for a direct 20–25-day journey from the US to India, leading to higher fuel consumption, operational costs, and carbon emissions, especially with empty backhauls.

- **New Model (Optimized STS Transfer)-** The new strategy involves transferring LNG cargo mid-journey, allowing one vessel to return quickly for another load while the second completes the trip to India. This method shortens travel distances, reduces costs, and minimizes carbon emissions, marking a significant advancement in LNG transportation.

**Figure 14: S2S operation is carried out at Gibraltar due to its strategic trade location**



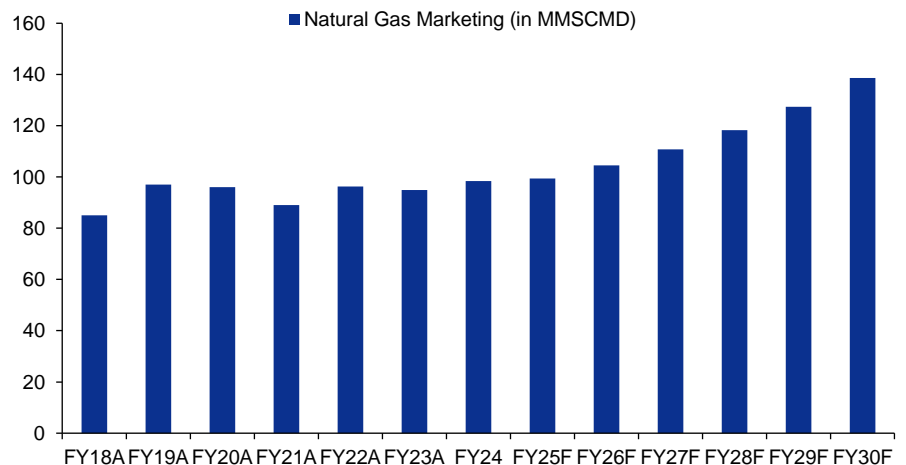
SOURCE: INCRED RESEARCH, COMPANY REPORTS

**~6-7% growth in gas marketing volume expected, driven by fertilizer plants, CGD sector expansion, and strategic pipeline developments**

- The city gas distribution (CGD) sector continues to post a double-digit CAGR, adding approximately 3-4mmscmd to GAIL India’s volume. With a market share of around 60-70%, the company stands to benefit from an additional 2-3mmscmd every year from this sector.
- Barauni-Guwahati and JHBD pipeline along the commissioning of Dhamra LNG terminal is poised to give robust growth in the northeast section for the company with many refineries, steel and metal companies in the way.
- The newly commissioned HURL plants at Barauni and Sindri, which came online at the end of FY23, are expected to consume over 4mmscmd alone. GAIL India holds marketing rights to nearly 90% of this volume, contributing significantly to the overall growth.

Downside Risk: If the CGD sector, the fastest-growing segment within natural gas, receives future HTPT allocations, GAIL India could face slower marketing volume growth.

**Figure 15: Domestic marketing volume to post ~6-7% CAGR over FY24-30F**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

## Petrochemical business

### India's petrochemicals sector poised for rapid growth as plastic consumption rises; projected to hit US\$300bn by FY31F

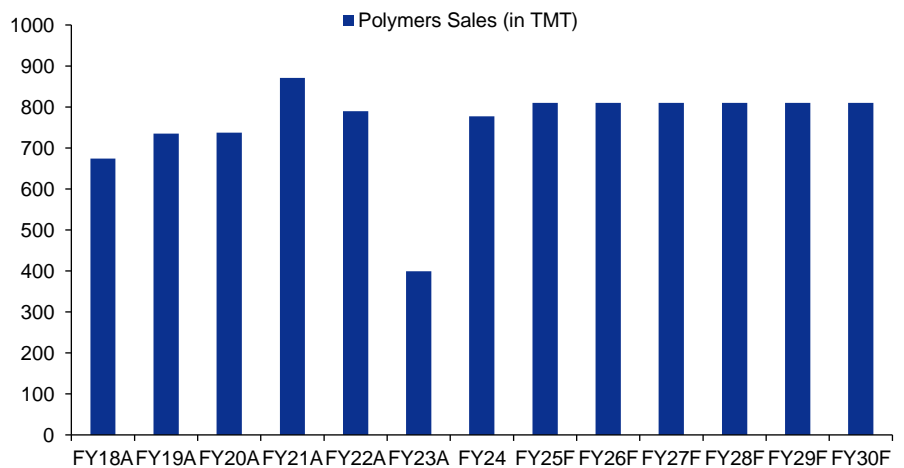
India's per capita plastic consumption is among the lowest globally at just 12kg, compared to China's 82kg, the world average of 38kg, and the US consumption at 93kg. Despite India's strong emphasis on reducing and reusing, there remains a vast potential for increased plastic consumption, with future polymer demand growth projected at 6-7% per annum.

Historically, India's petrochemical product consumption has grown at a rate of 1.3-1.5 times that of GDP, a trend expected to continue for the next 15-20 years. By 2030F, the petrochemicals sector is projected to expand to US\$300bn, driven by an 8% CAGR over the next decade. This growth is being fuelled by investments in both refinery-linked petrochemical assets and purpose-built units with diversified feedstocks.

### GAIL India's petrochemical production soars by 75% in FY24 at Pata complex, capturing 15% of India's market

GAIL India's Pata complex has a nameplate polymer production capacity of 810 kta. In FY24, the company's petrochemicals production surged by 75% to 777tmt, up from 442tmt in FY23. GAIL India now holds approximately 15% of the country's total petrochemicals production and 11.1% of total sales. Given the strong domestic demand, it is expected to run at almost full capacity going ahead.

**Figure 16: Petrochemicals plant expected to run at full capacity of 810kt going ahead**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 17: ~900scm needed for 1mt of LDPE and HDPE production**

| Pata Petrochemical Plant            |                  |                  |                 |                   |
|-------------------------------------|------------------|------------------|-----------------|-------------------|
| Product                             | RM               | Conversion       | Conversion unit | Production (mtpa) |
| Natural Gas                         | LPG              | 476              | SCM/MT          | 271059            |
| Natural Gas                         | Propane          | 536              | SCM/MT          |                   |
| Natural Gas                         | Pentane          | 328              | SCM/MT          |                   |
| Natural Gas                         | Naptha           | 277              | SCM/MT          |                   |
| Ethylene                            | HDPE             | 1.01             | MT/MT           | 200000            |
| Ethylene                            | LDPE             | 0.98             | MT/MT           | 610000            |
|                                     |                  |                  |                 |                   |
|                                     | Production (tpa) | Req raw material | Type of RM      |                   |
| HDPE                                | 200000           | 202000           | Naptha          |                   |
| LDPE                                | 610000           | 597800           | Naptha          |                   |
| Propane                             | 271059           | 129024084        | NG              |                   |
| Total req. Ethylene (Petchem)- tpa  | 799800           |                  |                 |                   |
| Naptha to Ethlene conversion factor | 30%              |                  |                 |                   |
| Total req. Naptha (Petchem)-tpa     | 2666000          |                  |                 |                   |
| Total req. NG (Petchem)- scmd       | 2023238          |                  |                 |                   |
| Total req. NG (Pata)- scmd          | 2376729          |                  |                 |                   |
| Total NG req/MT HDPE (scm)          | 933              |                  |                 |                   |
| Total NG req/MT LDPE (scm)          | 905              |                  |                 |                   |

SOURCE: INCRED RESEARCH, COMPANY REPORTS

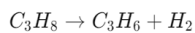
## GAIL India boosts petrochemical expansion with India's first PDH-PP plant and strategic supply agreements to commence by FY26F

GAIL India is expanding its petrochemicals business with the upcoming 500kta propane dehydrogenation and polypropylene (PDH-PP) plant at Usar in Maharashtra, which is expected to be commissioned in 2025F. This will be India's first plant utilizing propane dehydrogenation technology for producing propylene. To support this project, GAIL India has signed a Rs630bn agreement with Bharat Petroleum Corporation or BPCL for 15-year supply of 600ktpa propane at Rs50-52/kg. Additionally, GAIL India is setting up a 60kta polypropylene (PP) plant at Pata and a 50kta isopropanol (IPA) unit at Usar, further strengthening its petrochemicals production capabilities.

### Reaction Engineering

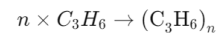
- Polypropylene (PP) is a versatile polymer widely used in various applications such as pipes and industrial appliances, and one of the key methods for producing it is the propane dehydrogenation (PDH) process, which converts propane into propylene, a crucial feedstock for polypropylene production.
- Propane Dehydrogenation (PDH) Process: The PDH process starts with propane, a byproduct of natural gas processing and oil refining. In this method, propane is subjected to high temperatures (around 600-650°C) in the presence of a catalyst. The dehydrogenation reaction occurs in reactors, where hydrogen atoms are removed from propane, converting it into propylene (C<sub>3</sub>H<sub>6</sub>) and hydrogen (H<sub>2</sub>) as a byproduct. The reaction is endothermic, requiring a continuous heat supply, typically provided by steam or direct-fired heaters. The catalyst used in this process is often a metal-based catalyst like platinum or chromium oxide, supported on alumina.
- Propylene Purification: The mixture of propylene and hydrogen exiting the reactor is then cooled, and the hydrogen is separated and recycled back into the process or used as fuel. The remaining propylene-rich stream is further purified through a series of distillation columns to remove any remaining impurities, ensuring that the propylene meets the required specifications for polymerization.
- Polypropylene Production: The purified propylene is then fed into a polymerization reactor, where it undergoes polymerization in the presence of a catalyst, typically a Ziegler-Natta or metallocene catalyst. During polymerization, propylene monomers are linked together to form long polymer chains, resulting in polypropylene. The properties of the resulting polymer can be tailored by adjusting the process conditions and catalyst type. The polypropylene is then extruded, cooled, and pelletized for use in various applications, including packaging, automotive components, textiles, and consumer goods.

**Figure 18: Propylene production through PDH**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 19: Polypropylene production**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 20: Mass balance and cost economics analysis of PDH-PP plant**

| Usar Petrochemical Plant    |           |            |                 |
|-----------------------------|-----------|------------|-----------------|
| Product                     | RM        | Conversion | Conversion unit |
| Propylene                   | Propane   | 0.9        | MT/MT           |
| Poly-Propylene              | Propylene | 0.85       | MT/MT           |
| Poly-Propylene              | Propane   | 0.77       | MT/MT           |
|                             | Case-1    | Case-2     |                 |
| Share of RW in total cost   | 60%       | 60%        |                 |
| Futures price of PP (\$)/MT | 1049      | 1049       |                 |
| Raw material price/ MT      | 51000     | 53000      |                 |
| Opex                        | 34000     | 35333      |                 |
| Total cost                  | 85000     | 88333      |                 |
| EBITDA                      | 2067      | -1266      |                 |

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**GAIL India to revolutionize Indian petrochemical industry with 1.4mtpa ethane cracking plant, doubling capacity by FY33F**

- GAIL India is taking a ground-breaking step by setting up India's first ethylene plant based on ethane cracking at Usar, with a massive capacity of 1.4mtpa. This state-of-the-art facility is poised to double the company's current petrochemicals capacity, marking a significant expansion in its portfolio.
- Scheduled for commissioning by 2032F, this plant will be a game-changer in the Indian petrochemicals industry as ethane-based crackers are much more profitable in comparison to naptha-based crackers.
- To support this ambitious project, GAIL India has secured contracts for two ethane transport vessels from the US, where it will initially source its primary feedstock. This strategic move not only enhances GAIL India's competitive edge but also solidifies its position as a leader in the Indian petrochemical market, paving the way for future growth and innovation.

**Business Risk**

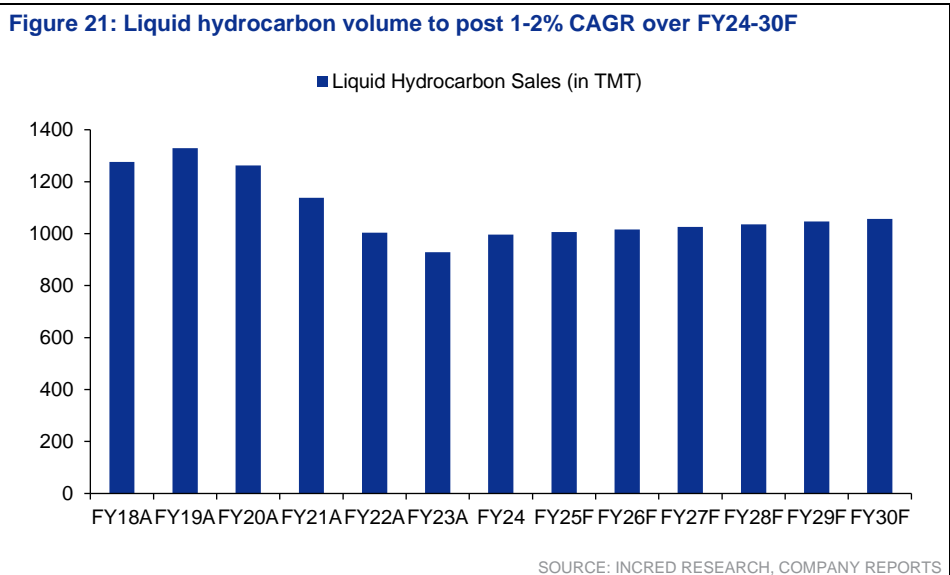
GAIL India's petrochemicals business faces a downside risk due to lack of domestic gas allocation, requiring its reliance on market-sourced gas. High gas prices have previously led to unviable operations and losses. Although prices have recently stabilized, the business remains exposed to market volatility. GAIL India is working on securing long-term contracts to mitigate this risk, but until then the petrochemicals segment's profitability remains vulnerable.

**LPG and LHC transmission**

**GAIL India boosts LHC production and expands LPG transmission network, enhancing capacity to 4.55mtpa**

- GAIL India operates five gas processing units (GPUs) across four locations, with liquid hydrocarbon (LHC) production capacity of 1,425kta. In FY24, LHC production rose to 996tmt, up from 934tmt in the previous year, while sales increased to 998tmt from 929tmt.
- GAIL India operates an extensive LPG transmission network spanning 2,040 km, which includes the 1,427km Jamnagar-Loni pipeline (JLPL) and the 610 km Vizag-Secunderabad pipeline (VSPL). These pipelines connect key regions across India, with a combined transmission capacity of 4.55mtpa or million metric tonne per annum.

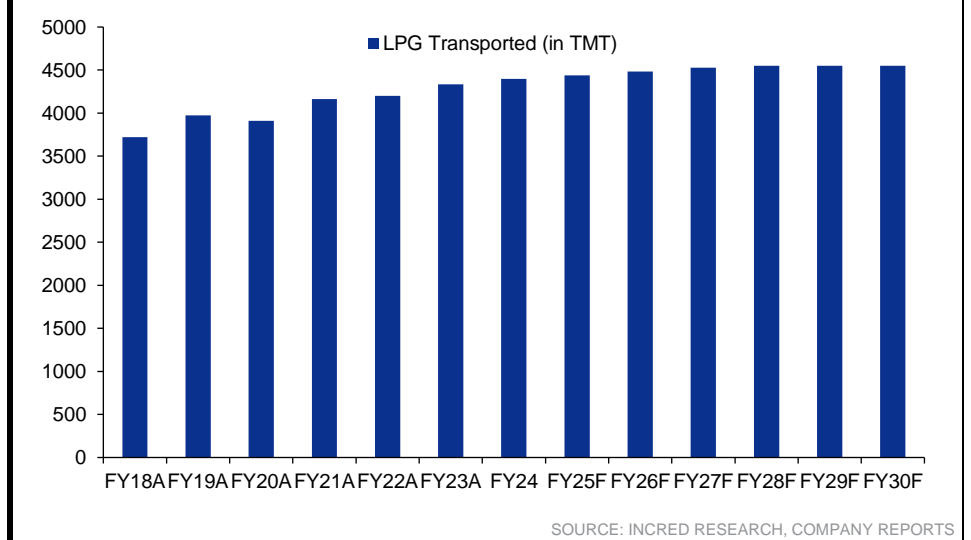
In FY24, GAIL India achieved its highest-ever throughput of 4.396mtpa, surpassing the previous year's 4.335mtpa, showcasing the network's growing efficiency and capacity utilization. The company receives a domestic allocation of 1.75mtpa @\$6.5/mmBtu for LPG and liquid hydrocarbons (LHC), ensuring that production aligns with the allocated volume.



## GAIL India secures stability with propane futures; PNGRB tariff increase to boost revenue/t by 3.4%

GAIL India locks in margins by monitoring propane and butane futures, providing stability to its profitability. The recent PNGRB (Petroleum and Natural Gas Regulatory Board) tariff hike is expected to raise the prices/t by 3.4%. Current LPG transmission tariff for VSPL and JLPL range between Rs1.6 to Rs1.9 per mt per km, helping GAIL India maintain competitive operations.

**Figure 22: LPG volume to reach full capacity of 4.5mmtpa by FY28F**



## Other businesses

### Oil exploration

GAIL India holds participating interest in 13 E&P blocks, including 10 in India, 2 in Myanmar, and 1 shale gas acreage in Eagle Ford Basin, Texas, US, through its wholly-owned subsidiary, GAIL Global (USA) Inc. These blocks cover a total area of 2,668km<sup>2</sup>. Despite the challenging environment, GAIL India's E&P activities generated Rs10.33bn in revenue in FY24, compared to Rs11.34bn in the previous fiscal year, reflecting the company's strategic focus and operational stability.

### GAIL India's renewable energy & green hydrogen initiatives

- **Renewable Energy Expansion:** GAIL India has a total installed renewable energy capacity of 135MW, comprising 118MW of wind and 17MW of solar power, with plans to significantly increase this capacity to 1GW by 2025F and 3GW by 2030F. Current projects include solar power plants at Vijaipur and Pata, contributing a revenue of Rs0.53bn in FY24.
- **Green Hydrogen Initiatives:** In line with India's Hydrogen Mission, GAIL India has launched a pilot project for hydrogen blending in the city gas network and inaugurated a 4.3tpd green hydrogen plant at Vijaipur. This plant, using a 10MW PEM electrolyzer, produces 99.999% pure hydrogen, which will be used for captive purposes and later distributed to retail customers.

### Record growth in CNG stations and DPNG connections, with innovative CNG boat conversions

- **Operational Footprint and Growth:** GAIL India operates in six geographical areas across Uttar Pradesh, Bihar, Jharkhand, and Odisha, with 115 CNG stations and 2,62,000 domestic PNG (DPNG) connections, supplying approximately 0.24m standard cubic metres per day (mmscmd) of gas in FY 24. Revenue from the CGD business increased to Rs5.95bn on a standalone basis and Rs118.52bn on a consolidated basis in FY24, up from Rs4.88bn and Rs112.87bn, respectively, in FY23.
- **Infrastructure Expansion:** GAIL India has expanded its infrastructure to 189 CNG stations and 342,948 DPNG connections. The company plans to add



over 80 new CNG stations and 150,000 new DPNG connections in the next two years across the six geographical areas. Notably, in Varanasi, it has successfully converted 738 boats to run on CNG, showcasing its innovative approach to expanding the CNG infrastructure.

## Segmental business performance over FY24-30F

**Figure 23: Gas transmission & marketing business is on an upswing; petrochemicals & LPG to become stable**

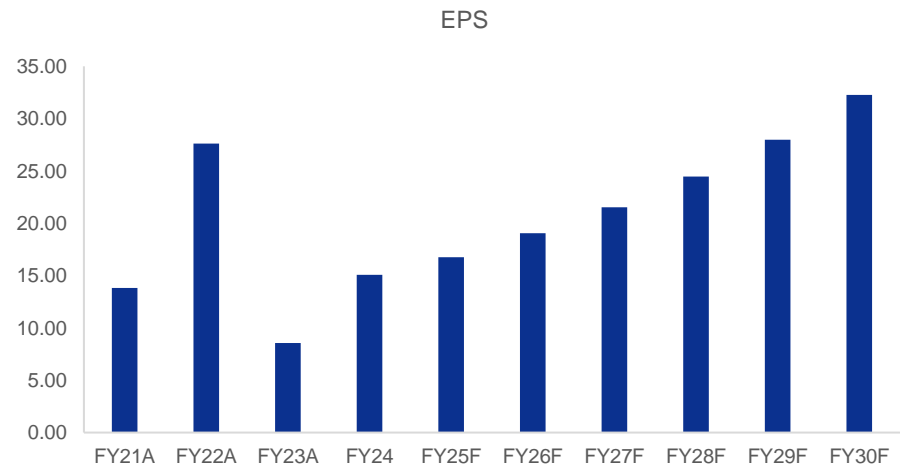
| Segmental Sales Volume               | FY24    | FY25F   | FY26F   | FY27F   | FY28F   | FY29F   | FY30F   |
|--------------------------------------|---------|---------|---------|---------|---------|---------|---------|
| Natural Gas Marketing (in mmscmd)    | 98.5    | 99.5    | 104.6   | 110.7   | 118.2   | 127.4   | 138.7   |
| Natural Gas Transmission (in mmscmd) | 120.5   | 127.1   | 135.8   | 146.2   | 159.1   | 174.9   | 194.4   |
| LPG Transported (in tmt)             | 4,396.0 | 4,440.0 | 4,484.4 | 4,529.2 | 4,550.0 | 4,550.0 | 4,550.0 |
| Polymer Sales (in tmt)               | 777.0   | 810.0   | 810.0   | 810.0   | 810.0   | 810.0   | 810.0   |
| Liquid Hydrocarbon Sales (in tmt)    | 996.0   | 1,006.0 | 1,016.0 | 1,026.2 | 1,036.4 | 1,046.8 | 1,057.3 |
| New PDH-PP Plant (in tmt)            |         |         | 560.0   | 560.0   | 560.0   | 560.0   | 560.0   |

SOURCES: INCRED RESEARCH, COMPANY REPORTS

## Earnings and valuation

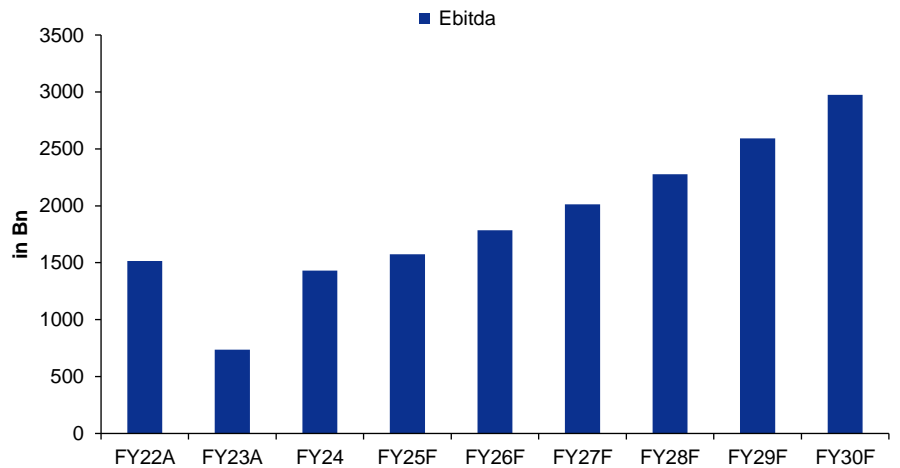
We expect EPS to post a CAGR of ~13.5% over FY24-30F on the back of the expected high-volume growth in the transmission and marketing segment driven primarily by the CGD, power, and fertilizer sectors. Unlike a few years back, the marketing margins are protected through cutting-edge operations like S2S and back-to-back hedging contracts and swap arrangements like destination and index swaps. Today, almost every other cargo's margin is protected through some contracts/arrangement. Also, the shift in the customer portfolio from overseas to India in the marketing segment would contribute significantly to this EPS growth due to high marketing margins in domestic sales vis-à-vis overseas sales.

**Figure 24: EPS to post ~13.5% CAGR over FY24-30F**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

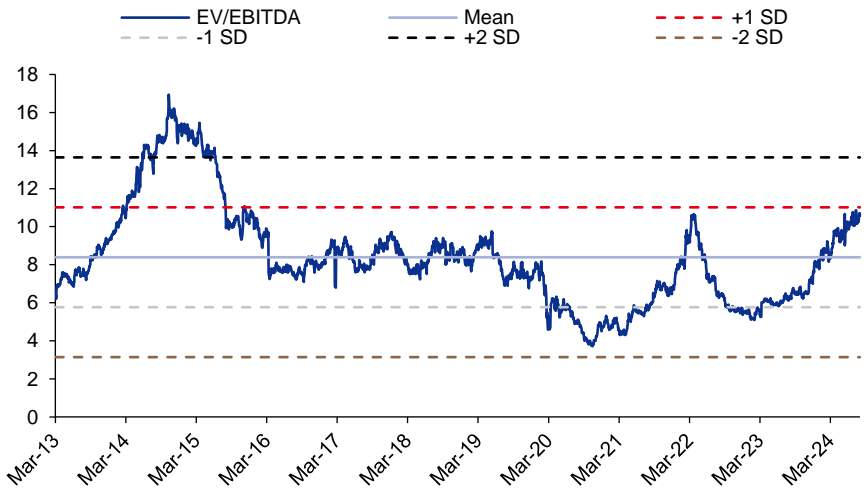
**Figure 25: EBITDA to post ~13% CAGR over FY24-30F**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**We believe in the volume growth story going ahead; we value the stock at 11x EV/EBITDA one-year forward to its 1SD ➤**

**Figure 26: We value the stock at 11x EV/EBITDA, at one-year forward to its 1SD**



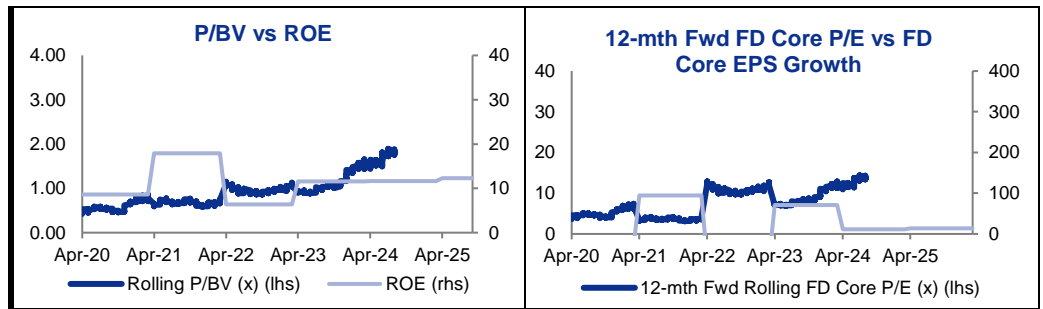
SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 27: We have valued GAIL India at its 10-year historical 1SD to arrive at our higher target price of Rs261; retain ADD rating**

| <b>Target Price</b>           |           |          |
|-------------------------------|-----------|----------|
| Item                          | Valuation | Unit     |
| FY26F EBITDA                  | 1,67,928  | Rs m     |
| One-year Forward Multiple     | 11        | x        |
| Sep 2026F EV                  | 18,49,742 | Rs m     |
| Sep 2026F Net Debt            | 1,35,616  | Rs m     |
| Sep 2026F Equity Value        | 17,14,126 | Rs m     |
| One-year Forward Target Price | 261       | Rs/share |

SOURCES: INCRED RESEARCH, COMPANY REPORTS

BY THE NUMBERS



Profit & Loss

| (Rs mn)                                   | Mar-22A        | Mar-23A          | Mar-24F          | Mar-25F          | Mar-26F          |
|-------------------------------------------|----------------|------------------|------------------|------------------|------------------|
| <b>Total Net Revenues</b>                 | <b>927,698</b> | <b>1,456,683</b> | <b>1,332,285</b> | <b>1,363,952</b> | <b>1,436,532</b> |
| <b>Gross Profit</b>                       | <b>226,627</b> | <b>168,370</b>   | <b>252,739</b>   | <b>269,793</b>   | <b>295,656</b>   |
| <b>Operating EBITDA</b>                   | <b>151,516</b> | <b>73,731</b>    | <b>142,963</b>   | <b>157,408</b>   | <b>178,448</b>   |
| Depreciation And Amortisation             | (24,202)       | (27,016)         | (36,720)         | (36,967)         | (38,816)         |
| <b>Operating EBIT</b>                     | <b>127,314</b> | <b>46,715</b>    | <b>106,243</b>   | <b>120,441</b>   | <b>139,633</b>   |
| Financial Income/(Expense)                | (2,133)        | (3,710)          | (7,192)          | (7,192)          | (7,192)          |
| Pretax Income/(Loss) from Assoc.          | 15,081         | 16,821           | 16,821           | 16,821           | 16,821           |
| Non-Operating Income/(Expense)            | 11,830         | 14,478           | 10,078           | 10,078           | 10,078           |
| <b>Profit Before Tax (pre-EI)</b>         | <b>137,012</b> | <b>57,483</b>    | <b>109,129</b>   | <b>123,327</b>   | <b>142,519</b>   |
| Exceptional Items                         |                |                  |                  |                  |                  |
| <b>Pre-tax Profit</b>                     | <b>152,092</b> | <b>74,304</b>    | <b>125,950</b>   | <b>140,147</b>   | <b>159,339</b>   |
| Taxation                                  | (31,599)       | (16,605)         | (26,922)         | (29,957)         | (34,059)         |
| Exceptional Income - post-tax             |                |                  |                  |                  |                  |
| <b>Profit After Tax</b>                   | <b>120,494</b> | <b>57,699</b>    | <b>99,028</b>    | <b>110,191</b>   | <b>125,281</b>   |
| Minority Interests                        | (476)          | 201              | 36               |                  |                  |
| Preferred Dividends                       |                |                  |                  |                  |                  |
| FX Gain/(Loss) - post tax                 |                |                  |                  |                  |                  |
| Other Adjustments - post-tax              |                |                  |                  |                  |                  |
| <b>Net Profit</b>                         | <b>120,018</b> | <b>57,900</b>    | <b>99,064</b>    | <b>110,191</b>   | <b>125,281</b>   |
| Recurring Net Profit                      | 108,070        | 44,838           | 85,839           | 96,965           | 112,055          |
| <b>Fully Diluted Recurring Net Profit</b> | <b>108,070</b> | <b>44,838</b>    | <b>85,839</b>    | <b>96,965</b>    | <b>112,055</b>   |

Cash Flow

| (Rs mn)                          | Mar-22A         | Mar-23A         | Mar-24F         | Mar-25F          | Mar-26F          |
|----------------------------------|-----------------|-----------------|-----------------|------------------|------------------|
| <b>EBITDA</b>                    | <b>151,516</b>  | <b>73,731</b>   | <b>142,963</b>  | <b>157,408</b>   | <b>178,448</b>   |
| Cash Flow from Invt. & Assoc.    |                 |                 |                 |                  |                  |
| Change In Working Capital        | (35,981)        | (34,291)        | 11,687          | (1,664)          | (2,212)          |
| (Incr)/Decr in Total Provisions  |                 |                 |                 |                  |                  |
| Other Non-Cash (Income)/Expense  |                 |                 |                 |                  |                  |
| Other Operating Cashflow         | (953)           | 82              | (56)            | (56)             | (56)             |
| Net Interest (Paid)/Received     | (4,717)         | (6,955)         | (10,858)        | (7,192)          | (7,192)          |
| Tax Paid                         | (32,842)        | (16,138)        | (32,741)        | (29,957)         | (34,059)         |
| <b>Cashflow From Operations</b>  | <b>77,023</b>   | <b>16,430</b>   | <b>110,995</b>  | <b>118,539</b>   | <b>134,929</b>   |
| Capex                            | (69,713)        | (88,306)        | (125,012)       | (170,000)        | (120,000)        |
| Disposals Of FAs/subsidiaries    |                 |                 |                 |                  |                  |
| Acq. Of Subsidiaries/investments |                 |                 |                 |                  |                  |
| Other Investing Cashflow         | 15,352          | 11,904          | 42,278          |                  |                  |
| <b>Cash Flow From Investing</b>  | <b>(54,360)</b> | <b>(76,401)</b> | <b>(82,734)</b> | <b>(170,000)</b> | <b>(120,000)</b> |
| Debt Raised/(repaid)             |                 | (13,289)        |                 |                  |                  |
| Proceeds From Issue Of Shares    |                 |                 |                 |                  |                  |
| Shares Repurchased               |                 |                 |                 |                  |                  |
| Dividends Paid                   | (39,954)        | (30,693)        | (36,205)        | (44,076)         | (50,112)         |
| Preferred Dividends              |                 |                 |                 |                  |                  |
| Other Financing Cashflow         | 787             | 73,702          | 1,631           | 32,329           | 30,435           |
| <b>Cash Flow From Financing</b>  | <b>(39,167)</b> | <b>29,721</b>   | <b>(34,574)</b> | <b>(11,748)</b>  | <b>(19,677)</b>  |
| Total Cash Generated             | (16,504)        | (30,251)        | (6,313)         | (63,208)         | (4,749)          |
| <b>Free Cashflow To Equity</b>   | <b>22,663</b>   | <b>(73,260)</b> | <b>28,261</b>   | <b>(51,461)</b>  | <b>14,929</b>    |
| <b>Free Cashflow To Firm</b>     | <b>24,795</b>   | <b>(56,262)</b> | <b>35,453</b>   | <b>(44,269)</b>  | <b>22,121</b>    |

SOURCE: INCRED RESEARCH, COMPANY REPORTS

BY THE NUMBERS...cont'd

| <b>Balance Sheet</b>                 |                |                |                  |                  |                  |
|--------------------------------------|----------------|----------------|------------------|------------------|------------------|
| <b>(Rs mn)</b>                       | <b>Mar-22A</b> | <b>Mar-23A</b> | <b>Mar-24F</b>   | <b>Mar-25F</b>   | <b>Mar-26F</b>   |
| Total Cash And Equivalents           | 28,040         | 11,030         | 17,121           | 33,747           | 76,029           |
| Total Debtors                        | 74,465         | 106,796        | 95,803           | 98,279           | 103,509          |
| Inventories                          | 35,766         | 59,179         | 59,700           | 61,119           | 64,371           |
| Total Other Current Assets           | 24,800         | 28,302         | 30,094           | 30,094           | 30,809           |
| <b>Total Current Assets</b>          | <b>163,072</b> | <b>205,307</b> | <b>202,718</b>   | <b>223,239</b>   | <b>274,719</b>   |
| Fixed Assets                         | 445,721        | 496,969        | 479,567          | 503,545          | 528,722          |
| Total Investments                    | 318,986        | 338,948        | 455,368          | 478,137          | 502,043          |
| Intangible Assets                    |                |                |                  |                  |                  |
| Total Other Non-Current Assets       | 71,860         | 51,551         | 109,519          | 114,995          | 120,745          |
| <b>Total Non-current Assets</b>      | <b>836,566</b> | <b>887,468</b> | <b>1,044,454</b> | <b>1,096,677</b> | <b>1,151,511</b> |
| Short-term Debt                      | 12,196         | 53,801         | 58,020           | 60,921           | 63,967           |
| Current Portion of Long-Term Debt    |                |                |                  |                  |                  |
| Total Creditors                      | 53,613         | 71,436         | 66,397           | 67,346           | 70,275           |
| Other Current Liabilities            | 85,124         | 91,874         | 91,989           | 93,272           | 97,328           |
| <b>Total Current Liabilities</b>     | <b>150,933</b> | <b>217,110</b> | <b>216,405</b>   | <b>221,539</b>   | <b>231,570</b>   |
| Total Long-term Debt                 | 54,681         | 88,797         | 128,060          | 128,060          | 128,060          |
| Hybrid Debt - Debt Component         |                |                |                  |                  |                  |
| Total Other Non-Current Liabilities  | 108,977        | 91,847         | 89,392           | 90,670           | 94,613           |
| <b>Total Non-current Liabilities</b> | <b>163,658</b> | <b>180,644</b> | <b>217,452</b>   | <b>218,730</b>   | <b>222,674</b>   |
| Total Provisions                     | 41,992         | 43,951         | 41,357           | 43,425           | 45,596           |
| <b>Total Liabilities</b>             | <b>356,583</b> | <b>441,705</b> | <b>475,215</b>   | <b>483,694</b>   | <b>499,839</b>   |
| Shareholders Equity                  | 641,143        | 649,274        | 769,972          | 836,223          | 926,391          |
| Minority Interests                   | 1,912          | 1,796          | 1,986            |                  |                  |
| <b>Total Equity</b>                  | <b>643,055</b> | <b>651,070</b> | <b>771,958</b>   | <b>836,223</b>   | <b>926,391</b>   |

| <b>Key Ratios</b>         |                |                |                |                |                |
|---------------------------|----------------|----------------|----------------|----------------|----------------|
|                           | <b>Mar-22A</b> | <b>Mar-23A</b> | <b>Mar-24F</b> | <b>Mar-25F</b> | <b>Mar-26F</b> |
| Revenue Growth            | 61.7%          | 57.0%          | (8.5%)         | 2.4%           | 5.3%           |
| Operating EBITDA Growth   | 109.2%         | (51.3%)        | 93.9%          | 10.1%          | 13.4%          |
| Operating EBITDA Margin   | 16.3%          | 5.1%           | 10.7%          | 11.5%          | 12.4%          |
| Net Cash Per Share (Rs)   | (8.75)         | (20.01)        | (25.70)        | (23.61)        | (17.64)        |
| BVPS (Rs)                 | 144.39         | 98.75          | 117.10         | 127.18         | 140.89         |
| Gross Interest Cover      | 59.70          | 12.59          | 14.77          | 16.75          | 19.41          |
| Effective Tax Rate        | 20.8%          | 22.3%          | 21.4%          | 21.4%          | 21.4%          |
| Net Dividend Payout Ratio | 38.1%          | 74.7%          | 44.0%          | 47.2%          | 46.2%          |
| Accounts Receivables Days | 21.54          | 22.71          | 27.75          | 25.97          | 25.64          |
| Inventory Days            | 17.09          | 13.45          | 20.10          | 20.15          | 20.07          |
| Accounts Payables Days    | 25.55          | 17.71          | 23.30          | 22.31          | 22.01          |
| ROIC (%)                  | 18.5%          | 6.0%           | 12.9%          | 13.9%          | 15.3%          |
| ROCE (%)                  | 18.3%          | 5.9%           | 11.6%          | 11.6%          | 12.5%          |
| Return On Average Assets  | 11.7%          | 4.2%           | 7.5%           | 7.7%           | 8.3%           |

SOURCE: INCRED RESEARCH, COMPANY REPORTS

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##### Stock Ratings

Definition:

- Add** The stock's total return is expected to exceed 10% over the next 12 months.
- Hold** The stock's total return is expected to be between 0% and positive 10% over the next 12 months.
- Reduce** The stock's total return is expected to fall below 0% or more over the next 12 months.

*The total expected return of a stock is defined as the sum of the: (i) percentage difference between the target price and the current price and (ii) the forward net dividend yields of the stock. Stock price targets have an investment horizon of 12 months.*

##### Sector Ratings

Definition:

- Overweight** An Overweight rating means stocks in the sector have, on a market cap-weighted basis, a positive absolute recommendation.
- Neutral** A Neutral rating means stocks in the sector have, on a market cap-weighted basis, a neutral absolute recommendation.
- Underweight** An Underweight rating means stocks in the sector have, on a market cap-weighted basis, a negative absolute recommendation.

##### Country Ratings

Definition:

- Overweight** An Overweight rating means investors should be positioned with an above-market weight in this country relative to benchmark.
- Neutral** A Neutral rating means investors should be positioned with a neutral weight in this country relative to benchmark.
- Underweight** An Underweight rating means investors should be positioned with a below-market weight in this country relative to benchmark.