Rating Methodology – City Gas Distribution Companies

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Industry overview

The City Gas Distribution (CGD) sector forms a part of the natural gas downstream sector. CGD entities supply natural gas in the form of compressed natural gas (CNG) to the transportation sector and piped natural gas (PNG) to the domestic (PNG-D), commercial (PNG-C), and industrial sector (PNG-I). Petroleum and Natural Gas Regulatory Board (PNGRB) established in 2007 under the PNGRB act 2006 is the regulator for CGD entities and oversees the authorization of CGDs. The implementation of the CGD network in the country has been done in a phased manner. As of January 31, 2021, there has been a total of ten bidding rounds, through which PNGRB has authorized 230 geographical areas (GAs) which cover more than 50% of the country's area and 70% of the country's population.

Domestic natural gas

India's total natural gas reserve stands at 1.3 trillion cubic meters (global ranking: 23rd), while the production and consumption stood at 30.26 billion cubic meters (bcm) and 64.1 bcm, respectively, during FY20. Natural gas contribution to India's total energy mix has traditionally remained low on account of challenges on the transmission and distribution infrastructure front apart from the dwindling production trend. The current share of natural gas in India's energy mix is around 6%, and the Government of India plans to increase it to around 15% by 2030. With the decline in domestic gas production, the reliance on imports has been on a continuous rise to serve the increasing demand year-on-year.

Rating Methodology

CARE Ratings has developed a rating methodology for debt issues of city gas distribution entities. The rating procedure is designed to facilitate appropriate credit risk assessment, keeping in view the characteristics of the Indian city gas distribution sector.

CARE's rating looks at a time horizon over the life of the debt instrument being rated and covers the following factors while rating city gas distribution entities.

- Promoter group and management team
- Business risks
- Financial risk
- Project risk

Promoters/Management Analysis

The experience and market image of the promoters are given importance while evaluating management competency and quality. The ability of the management to take judicious business expansion decision is evaluated as CGD is a capital intensive and long gestation business. CARE also lays importance on the resourcefulness of the promoter group to infuse and/or raise funds promptly thus providing enhanced financial flexibility. The rating methodology for CGD entities also lays considerable stress on the commitment of the promoters in the form of equity along with their ability to continuously support during the initial years of operations for loss funding and debt servicing if needed and their active involvement in the operations of the entity, considering the importance of the entity in the overall group's portfolio. Promoter/parentage of players from Oil & Gas sector is given due weightage considering their long-term exposure in the sector.

Business risk analysis

- **Demand analysis of geographical areas (GAs):** To ascertain the robustness and visibility of revenue, CARE evaluates the demand in the authorized GAs of CGD entities. The four segments (CNG, PNG – D, I &C) in which CGD entities primarily operate have different demand drivers. CNG demand is driven by factors such as the number of automobiles in the GA, availability of CNG infrastructure, and population. On the other hand, PNG-D, I & C demand driver includes the number of households/industrial/commercial establishments in the GA, pipeline infrastructure, and economic growth rate in the GA. Presence in multiple GAs provides revenue diversification and is considered to be a positive factor. Each GA has a different demand driver and the same is analyzed in detail. Some GAs have mandated CNG business, while others are completely reliant on the economics of CNG versus alternate fuel (petrol & diesel). A GA with high industrial setups would witness high PNG (Industrial and Commercial) volumes.

- **Supply analysis of gas:** To have uninterrupted business operations, the adequacy of natural gas is critical for CGD entities. Therefore, CARE analyzes the gas procurement arrangement of CGD entities such as long-term Gas sales purchase agreement (GSPA). The Ministry of Petroleum and Natural Gas (MoPNG) has allowed 100% domestic gas, i.e., Administered Price Mechanism (APM) and Panna Mukti Tapti (PMT), supply for Domestic PNG and CNG based on the entity's previous six-month average consumption. The APM gas supplied to CNG and PNG-D is regulated through a half-yearly price mechanism (New Domestic Natural Gas Pricing Guidelines, 2014) applicable from November 2014. Due to low natural gas prices, the attractiveness of CNG and PNG-D has increased leading to increased consumption. Any change in gas allocation policy leading to lower availability of gas to cater to the CNG or PNG-D segment would adversely impact the CGD entities.

- **Consumer mix:** As mentioned above, MoPNG has allocated 100% domestic gas for CNG and PNG-D segments, while the other two segments, PNG-C and PNG-I, have to rely on spot LNG. APM price being regulated has remained lower compared to spot LNG thereby giving a natural advantage for CNG and PNG-D. CARE examines the consumer mix of CGD entities as entities with a higher proportion of CNG and PNG-D sales as compared to PNG-C & I tend to have higher margins. The CNG and PNG-D segment has lesser competition as compared to the PNG-C & I segment wherein there is high competition and also switching to alternate fuel is much easier. However, PNG- C & I comes with large volumes when compared to CNG and PNG-D segments.

- **Pricing and Competitiveness with respect to alternate fuel:** The pricing strategy of a CGD entity is governed by various factors such as the cost involved in gas sourcing, price sensitivities of buyer based on their current cost of energy and return on the capex and opex done for a particular GA. Considering all these factors, CGD entities fix the price of CNG and PNG at discount to alternative fuel to keep natural gas competitive. CNG as a fuel directly competes with established fuels in the market such as petrol and diesel. The increase in CNG volume through new vehicles and conversion of existing ones has been possible only due to its price competitiveness. A significant upward movement in CNG price might put an end to the economics and thus is a crucial monitorable during the rating of CGD entities. Similarly, for PNG the economics does play a major role and is a crucial factor. PNG-D gets competition from subsidized LPG, while pet coke, furnace oil, bulk LPG compete with PNG – C & I. Nevertheless, there is a significant convenient factor that comes into play in PNG demand as well. Thus, while analyzing the pricing of CNG and PNG, CARE does evaluate its competitiveness with respect to alternative fuel in the GA.

CARE evaluates the profitability margin of the CGD entities in comparison to other industry players. The PBILDT margin and PBILDT/SCM (standard cubic meter) are used as standard benchmarks to evaluate the margins of a company against its peers. Factors that may impact the PBILDT margins include the customer mix of CNG versus PNG- I & C (more price-sensitive customers) and prevailing domestic natural gas prices.

- **Competition from third-party post completion of marketing exclusivity:** Owing to high investment, CGD entities do receive marketing and infrastructure exclusivity when they receive authorization for a particular GA. As per the guidelines of the Petroleum and Natural Gas Regulatory Board (PNGRB), CGD entities had market exclusivity right of 5 years from the date of receiving the authorization for the existing two GAs till 8th round and of 8 years for the four GAs won in 9th and 10th round (which is furthermore extendable up to 2 years based on physical performance). The exclusivity restricts any other player to operate in the authorized GA till the period of exclusivity. The exclusivity was provided to the CGD entities to build the infrastructure and recover some part of it before the competition sets in. Post completion of the marketing exclusivity period, CGD entities would be exposed to competition from a new player who can use their network by paying a network tariff and compression charges.

  Marketing exclusivity for various early entrants in the industry has either ended or is about to end and therefore would face competition from new entrants. CGD entities which had quoted low network tariff and compression charges in initial rounds of bidding (as lowness of network tariff and compression charges had high weightage in bidding criteria) would have to share their network without much of return as compared to recent bidding rounds wherein the network tariff and compression charges were made part of the bid itself from ninth bidding round (wherein the focus was more towards infrastructure development as against tariff).

- **Regulatory risk:** The CGD business is regulated by PNGRB which was set up by the government of India in 2007 as the regulating body of CGD business in India. Thus, all the CGD players are subject to the regulations of PNGRB. CARE views regulatory risk to be critical for CGD operations and continuously monitors its impact on the operations, business continuity, impact on profitability, and eventual credit profile.

Authorization and penalties: PNGRB is the regulatory body that decides the authorization for a GA. PNGRB authorizes only one operator for a GA depending on various factors and therefore getting the authorization for a preferred GA is not always possible.

Another important aspect associated with authorizations is that it comes with pre-specified MWP which if not fulfilled may lead to penalties and encashment of PBGs submitted during the bidding process. CARE, therefore, evaluates the progress of the CGD players with respect to the MWP approved by PNGRB.

Gas allocation policy: The current domestic gas policy is in favour of CGD players as The Ministry of Petroleum and Natural Gas (MoPNG) has allowed 100% domestic gas, i.e., Administered Price Mechanism (APM) and Panna Mukti Tapti (PMT), supply for DPNG and CNG based on the entity's previous six-month average consumption. Given the low price of domestic natural gas, the economics works out in favor of CGD players. Any change in gas allocation policy might act as detrimental for the CGD entities.

New regulations such as open access: The Petroleum and Natural Gas Regulatory Board (PNGRB), had granted exclusive marketing rights to CGD networks, post its formation, for a limited period. PNGRB has formulated a concept paper to determine a process to open up these CGD networks to competition to promote fair competition and efficient use of resources while also protecting the interests of the consumers.

Financial risk analysis

CARE follows its standard ratio analysis methodology for non-financial sector entities to assess the financial risk of entities in the CGD sector. *Refer to CARE's Rating Methodology for the non-financial sector on our website www.careratings.com .*

Solvency and debt coverage: The CGD industry is highly capital intensive and is characterized by a long gestation period. CGD entities also continuously invest in infrastructure expansion. Therefore, CARE evaluates the capital structure of a CGD entity and the total debt position vis-à-vis level of gross cash accruals to ascertain the adequacy of its cash flows to service debt repayment obligations. Furthermore, while evaluating future cash flows, capex requirement and its funding pattern are also factored in. Given the fact that CGD entities have high initial investment and long gestation periods, repayment schedules are of a longer tenor. Any significant change in interest rates can have an impact on the debt servicing capabilities of CGD entity.

Project Risk

While examining new/expansion plans, CARE Ratings evaluates the rationale of the project, its strategic importance in the entity's business plan, the kind of services being offered, and the magnitude of the project vis-à-vis the net worth/asset size of the entity. Apart from these generic project risk factors, CARE looks into the following specific risk factors while analyzing a CGD entity.

- **Approval and execution risk:** Various approvals are needed for the infrastructure development in the CGD business including approvals from authorities such as National Highways, Roads & Building Department, Municipal Corporations, Village Panchayat, etc. Timely receipt of approvals is crucial for achieving on-time COD.

- **Financial closure:** CARE Ratings considers the stage of fund raising both from an equity and debt perspective to be critical for smooth project implementation. Thus, apart from the ability of promoter group to fund equity commitments in a timely manner, stage of debt tie up and disbursements are equity critical.

- **Infrastructure development:** Apart from the approvals, CGD entities do need to develop a large network of CNG stations, pipelines, pumps for CNG, etc. CGD entities need to adhere to the Minimum Work Program (MWP) provided by PNGRB during the authorization stage and any major deviation may attract penalties. As part of authorization, CGD entities need to deposit performance bank guarantees to PNGRB, and in case of deviation, PNGRB can encash the same. CARE while evaluating CGD entities compares the MWP with actual progress and also keeps a track of MWP achievement. Furthermore, connectivity with trunk pipeline for gas sourcing is another important infrastructure that at times is beyond the control of CGD players, which may lead to delay in achieving the COD.

Conclusion

The rating outcome is ultimately an assessment of the fundamentals and the probabilities of change in the fundamentals. CARE's Rating Committee analyses each of the above factors and their linkages to arrive at the overall assessment of the credit quality of the issuer based on its holistic judgement. While the methodology encompasses comprehensive financial, commercial, economic, and management analysis, credit rating is an overall assessment of all aspects of the issuer.

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