CARE Ratings’ criteria for rating of City Gas Distribution Companies

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Industry Overview

The City Gas Distribution (CGD) sector forms an integral part of the natural gas downstream sector. The 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). The Petroleum and Natural Gas Regulatory Board (PNGRB), established in the year 2007 under the PNGRB Act 2006, is the regulator for CGD entities in India and oversees the authorisation of various geographical areas (GAs). The implementation of the CGD network in the country has been done in a phased manner. As on January 31, 2023, there have been a total of 11 CGD bidding rounds, through which the PNGRB has authorised 295 Gas, which cover around 88% of the country’s GA and around 98% of its population.

Domestic Natural Gas

India’s total natural gas reserves stood at 1.3 trillion cubic metres (global ranking: 22nd), while the production and consumption stood at 28.5 billion cubic metres (bcm) and 62.2 bcm, respectively, during FY21. Against the share of natural gas in India’s primary energy mix of 6.3% in FY21, the Government of India (GoI) plans to increase it to around 15% by 2030. The low share of natural gas contribution to India’s primary energy mix has been on account of the challenges associated with transmission and distribution infrastructure apart from the dwindling domestic production. With largely stagnant domestic natural gas production, the reliance on imports has been on a continuous rise to serve the increasing demand.

Rating Methodology

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

The ratings assigned by CARE Ratings look at a time horizon over the life of the debt instruments being rated and cover the following factors while rating CGD entities.

- Business risk
- Industry risk
- Financial risk
- Project risk
- Promoter / Management risk
- Environment, Social, Governance (ESG) risk

Business Risk Analysis

- **Demand analysis of GAs:** To ascertain the robustness and visibility of revenue, CARE Ratings evaluates the demand in the authorised GAs of the CGD entities. The four segments (CNG, PNG – D, I, and C) in which the CGD entities primarily operate have different demand drivers. The CNG demand is driven by factors, such as the number of automobiles in the GA, availability of CNG infrastructure, use of CNG vehicles for public transport and population. On the other hand, PNG-D, I & C demand drivers include the number of households / industrial / commercial establishments in the GA, pipeline infrastructure and economic growth rate in the GA. The presence in multiple GAs provides revenue diversification and is considered as a positive factor. Each GA has different demand drivers and the same are analysed in detail. Some GAs have mandated CNG as a transportation fuel, while others are reliant on the cost economics of CNG versus alternative fuels (such as petrol and diesel). A GA with high industrial setups would witness high PNG (industrial and commercial) volumes, whereas a GA with high number of public transport vehicles would witness high CNG volumes.

- **Supply analysis of natural gas and its allocation:** To have uninterrupted business operations, the adequacy of natural gas is critical for the CGD entities. Therefore, CARE Ratings analyses the natural gas procurement arrangement of CGD entities such as long-term gas sales purchase agreement (GSPA). In India, the Ministry of Petroleum and Natural Gas (MoPNG), GoI, exercises control over the allocation of domestic natural gas produced in the country. As a part of its emphasis on augmenting the use of natural gas in the country, under the existing regulations, CGD companies are accorded the highest priority and are allotted domestic natural gas under the administered price mechanism (APM). APM price is declared by Petroleum Planning and Analysis Cell (PPAC) every half yearly and the requirement of PNG-D and CNG segments is largely met through this gas. The CGD companies have to rely on imported regassified liquefied natural gas (RLNG) for meeting the requirement of PNG-C and PNG-I segments and shortfall in CNG and PNG-D supplies. Any unexpected change in the regulations regarding priority in the allocation of APM gas for PNG-D and CNG segments and/or its pricing can adversely impact the profitability margins of the CGD companies.

  CARE Ratings also analyses the quantum of RLNG in the overall natural gas procurement mix of a CGD entity along with extent of spot / short-term purchases in the overall RLNG procurement. Higher quantum of RLNG sourced through long-term contracts is viewed positively due to the vagaries associated with the spot market.

- **Consumer mix:** As mentioned above, CGD companies are accorded the highest priority and are allotted domestic natural gas under the APM for meeting the requirements of CNG and PNG-D segments, while the other two segments, PNG-C and PNG-I, have to rely on RLNG. APM price, being regulated, has remained lower as compared with RLNG prices thereby giving an advantage to the CNG and PNG-D segments. CARE Ratings examines the consumer mix of CGD entities, as entities with a higher proportion of CNG and PNG-D sales as compared with PNG-C and PNG-I segments tend to have higher profitability margins. The PNG-D segment on the other hand has very less competition as compared to the PNG-C and PNG-I segments, wherein there is high competition and also switching to alternative fuels is much easier. However, the PNG-C and PNG-I segments have large volumes as compared to CNG and PNG-D segments.

Industry Risk Analysis

- **Pricing and cost competitiveness vis-à-vis alternative fuels:** The pricing strategy of a CGD entity is governed by various factors such as the cost involved in natural gas sourcing, price sensitivities of buyers 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, which generally is discount to alternative fuels to keep natural gas competitive. CNG as a fuel directly competes with established fuels in the market such as petrol and diesel and emerging modes of transport such as electric vehicles (EVs). The increase in the CNG volumes through new vehicles and conversion of existing ones has been possible only due to its price competitiveness. A significant upward movement in the CNG prices might reduce the cost economics and thus, is a crucial monitorable during the rating of CGD entities. Similarly, for PNG, the cost economics does play a major role and is a crucial factor. PNG-D gets competition from subsidised liquified petroleum gas (LPG), while pet coke, furnace oil, bulk LPG compete with the PNG-C and PNG-I segments. Nevertheless, there is a significant convenient factor that comes into play in PNG demand as well. Thus, while analysing the pricing of the PNG segment, CARE Ratings evaluates its cost competitiveness with respect to alternative fuels in the GA and in case of CNG segment, CARE Ratings evaluates its cost competitiveness with respect to alternative fuels and electric vehicles in the GA on both running cost as well as lifecycle basis.

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

- **Competition from third-party post completion of marketing exclusivity:** Owing to high investment, the CGD entities receive marketing and infrastructure exclusivity when they receive authorisation for a particular GA. As per the PNGRB regulations, all the CGD entities have a 5-year marketing exclusivity and 25-year infrastructure exclusivity from the date of authorisation in respective GAs. However, from the 9th CGD bidding round, the market exclusivity is increased from five years to eight years, which is further extendable up to two years based on physical performance. The exclusivity period restricts any other player to operate in the authorised GA till the specified period. The exclusivity was provided to the CGD entities to build the infrastructure and recover the same before the competition sets in. Post completion of the marketing exclusivity period, CGD entities would be exposed to the competition from a new player who can use their network by paying network tariff and compression charges.

  Marketing exclusivity for various early entrants in the industry has either ended or is about to end, and therefore, may lead to increasing competitive intensity.

- **Regulatory risk:** The PNGRB, set-up in 2007 by the GoI, is the regulating body of the CGD business in India. Consequently, all the CGD players are subject to the regulations of the PNGRB. The PNGRB had granted exclusive marketing rights to the CGD players in the respective GAs post their formation for a stipulated time period. Many of the GAs have reached the end of the time frame for exemption from the purview of a common contract carrier. In November 2020, the PNGRB had formulated guidelines for determining CGD network tariff and allowing third-party access to existing CGD players' infrastructure network for supply of natural gas upon expiry of the marketing exclusivity period. These guidelines, if implemented, could result in possible entry of competitors in the existing GAs through implementation of common contract carrier regulation after the expiry of the marketing exclusivity period and could also lead to concomitant impact on the CGD sector's profitability. Thus, as and when such regulatory changes are implemented and the form in which they are implemented would be a key monitorable for the CGD sector going forward.

  CARE Ratings views regulatory risk to be paramount for the CGD companies necessitating continual monitoring of its impact on the operations, business continuity, profitability, and eventual credit profile.

Financial Risk Analysis

CARE Ratings 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 Ratings' methodology for the financial ratios of non-financial sector on our website www.careedge.in.

Solvency and debt coverage: The CGD industry is highly capital intensive and is characterised by long gestation period. CGD entities also continuously invest in infrastructure expansion. Therefore, CARE Ratings evaluates the capital structure of a CGD entity and the total debt position vis-à-vis level of gross cash accruals and PBILDT to ascertain the adequacy of its cash flows to service its 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 capital investment and long gestation period, debt amortisation is spread over longer tenor. Any significant change in the interest rates can have an impact on the debt servicing capabilities of the CGD entity.

Project Risk Analysis

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 Ratings looks into the following specific risk factors while analysing 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 commercial operations date (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 the promoter group to fund equity commitments in a timely manner, status of debt tie-up and disbursements are equally critical.

- **Infrastructure development:** Apart from the approvals, CGD entities need to develop a large network of CNG stations, pipelines, etc. The CGD capex is modular in nature with revenue generation linked to commercialisation of individual CNG stations / PNG connections and does not necessitate completion of the entire capex. Also, an important aspect associated with CGD authorisations is that it comes with pre-specified minimum work programme (MWP). CGD entities need to adhere to the MWP commitments which if not fulfilled, may attract penalties and encashment of the performance bank guarantees (PBGs) submitted by the CGD companies at the time of CGD authorisation. CARE Ratings while evaluating the CGD entities evaluates the progress of the CGD players with respect to the MWP approved by the PNGRB. Furthermore, connectivity of the GAs with the trunk pipeline for natural gas sourcing is another important aspect beyond the purview of the CGD players, which may influence timely achievement of COD.

Promoters / Management Risk 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 decisions is evaluated, as CGD is a capital intensive and long gestation business. CARE Ratings 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 extend need-based support during the initial years of operations and their active involvement in the operations of the entity, considering the importance of the entity in the overall group's portfolio. The promoter / parentage of players from the oil & gas sector is given due weightage considering their long-term exposure in the sector.

Environment, Social, Governance (ESG) Risk Analysis

Natural gas is a cleaner fuel, and hence, environment risk for the CGD companies is low. Natural gas largely replaces fossil fuels like coal and oil and is thus regarded as green fuel.

Similar to any other infrastructure project, CGD requires acquisition of a large portion of land along with the right of way (RoW) / right of use (RoU) approvals to lay the necessary infrastructure. This may lead to issues around rehabilitation and compensation between the CGD companies and the landowners or the affected people from the community. Effective management of social risk through the smooth settlement of discord with locals during land acquisition, and RoW / RoU approvals are factored in the analysis.

Governance risk in a corporate is determined by a host of factors, which includes and is not limited to the following, viz., financial reporting, corporate practices, adherence to code of conduct, board composition, whistle-blower policies, investor relations, etc. CARE Ratings tries to form a broad opinion from the available information regarding the governance standards of the entity being evaluated. CARE Ratings also assesses the composition of the Board of Directors of the CGD company, the level of compliance with various policies, the quality of financial reporting and the adequacy in disclosure from the perspective of corporate governance.

Conclusion

The rating outcome is ultimately an assessment of the fundamentals and the probabilities of change in the fundamentals. CARE Ratings' 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, the credit rating is an overall assessment of all aspects of the issuer.

[For previous version please refer 'Rating Methodology – City Gas Distribution Companies' issued in March 2021]

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