# RATING METHODOLOGY – CITY GAS DISTRIBUTION

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This rating methodology updates and supersedes ICRA's earlier methodology document on this subject, published in July 2023. While this revised version incorporates a few modifications to provide more clarity on a few aspects, ICRA's overall approach to rating entities in the sector remains materially similar.

## Overview

City Gas Distribution (CGD) companies supply piped natural gas (PNG) as PNG-Commercial (PNG-C) and as PNG-Industrial (PNG-I) to the industrial establishments for heating and power generation purposes and as PNG-Domestic (PNG-D) to households for cooking and heating purposes. CGD companies retail compressed natural gas (CNG) for use as auto fuel. A CGD company may have operations in one or more geographical area (GA) as authorised by the regulatory authorities.

According to the Petroleum and Natural Gas Regulatory Board (PNGRB) data as on March 2025, the CGD sector supplies about ~41.7 million standard cubic metres per day (MMSCMD) of natural gas to various consumer segments. The same has witnessed a healthy growth over the past few years, supported by multiple factors like (a) favourable cost economics due to higher calorific value in case of CNG and priority allocation of domestic natural gas by the Government of India (GoI) to PNG-D/CNG consumers under the Administrative Price Mechanism (APM), (b) policy initiatives transitioning to cleaner fuel (gas), especially by industries and commercial vehicles and (c) increasing availability of imported natural gas. The demand for the PNG (D) segment is being met entirely through APM gas. With progressive de-allocation of the APM gas from the CNG segment, the natural gas requirement for the segment is now being met through a mix of APM gas, New Well Gas (NWG), High Pressure-High Temperature (HPHT) gas, along with imported LNG. The demand for the PNG-I and PNG-C segments is met entirely through imported LNG. Over the next few years, the sector is expected to witness healthy growth, supported by expanding CGD infrastructure, along with improved availability of competitively priced LNG as global LNG liquefaction capacity is projected to rise by ~50% over the course of CY2025 to CY2028.

For distribution of PNG to consumers, the CGD companies set up a network of steel and medium density polyethylene pipelines across its GAs and transport the gas from their city gas station (where the gas is received from the gas supplier) to the consumer. For retailing CNG, the CGD companies set up dispensers either at their own exclusive stations and/or at the fuel pumps of oil marketing companies (OMCs). As large upfront capex and multiple regulatory approvals are required for setting up the pipeline network and CNG stations, the credit risk profile of CGD companies depends on the expected demand growth, size of capex, means of funding, status of approvals and maturity of operations, among other factors.

In 2007, the Government of India (GoI) set up a regulator, the Petroleum & Natural Gas Regulatory Board (PNGRB), which has, among other mandates in the hydrocarbon sector, the mandate of regulating the CGD business. The PNGRB has conducted 14 rounds of bidding to allocate 307 GAs across the country, covering nearly the entire geographical area of the country. The attractiveness of a particular GA depends upon the availability of pipeline connectivity with trunk pipelines, the potential for gas sales and the mix of industrial, commercial, domestic and CNG segments. The PNG-D and CNG segments remained profitable for the CGD entities vis-à-vis PNG-I and PNG-C, given the allocation of low priced APM gas, which resulted in healthy contribution margins. However, the margins in the PNG-I and PNG-C segments are constrained, because majority of their natural gas requirement is met from imported LNG, and the pricing for the consumers is to be kept competitive compared to alternative fuels like propane, butane, etc (due the customer's ability to switch between the fuels without any hinderance). Over the course of FY2025 and YTD FY2026, the CNG segment witnessed incremental deallocation of the APM gas and replacement of part of the APM gas by the NWG. As a result, the CNG segment has increased reliance on imported LNG. Going forward, with the falling trend in the APM gas production in the country, the share of APM gas in the overall gas mix for the CNG segment is expected to further moderate. Since the reliance on higher priced gas i.e. NWG, HPHT and imported LNG will rise for the CNG segment, the overall input cost will also rise. The CGD entities may have limited headroom to pass on the increase in the input gas costs as it will be imperative to maintain the overall cost competitiveness for a CNG vehicle over other drivetrains like petrol/diesel/electric vehicles (EVs).

In the recent years, the push for converting the state transport bus fleets to EVs remains a key risk for the CNG offtake going forward, given the large volume of CNG the buses can consume. Several state government/state transport utilities are looking to ramp up the share of EV buses in the overall share of the bus fleet going forward. At present, the EV passenger vehicles remain cost disadvantaged vis-à-vis CNG vehicles owing to higher initial purchase cost, high battery replacement cost (at least once during ownership period of 10 years) and lack of a buoyant resale market. However, going forward, with expectations of the overall costs for EVs expected to moderate as the industry progresses on the learning curve, the CNG segment may face slower growth.

During the bidding for a GA, aggressive bidding by the companies for setting up infrastructure may make them vulnerable to competition from third-party marketers once the exclusivity period (currently five years for GAs allocated till 7$^{th}$ round and eight years for GAs allocate from 8$^{th}$ round onwards) is over, though competition from third party marketeers has not materialised till date even for GAs where marketing exclusivity period is over. Accordingly, the credit risk profile of a CGD entity depends upon the current gas consumption, demand growth potential in its GA, the user mix, gas tie-ups with suppliers and the bid parameters.

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## Industry Risk Assessment

### Regulatory Risk

The regulatory risk for the sector is generally limited as the authorisation for operations in the allotted GAs by PNGRB is awarded as per the bidding criteria, which defines the minimum work programme and tariffs among others. Prior to the enactment of the PNGRB Act (2009), the authorisation was awarded by the Ministry of Petroleum and Natural Gas (MoPNG). Most of the PSU CGD companies, which received their initial approval from MoPNG, have subsequently obtained authorisation from PNGRB as well. However, authorisation in few GAs are being contested as there are multiple operators in those cities, which results in exposure to regulatory risk for a few entities. As the PNGRB Act envisages a single entity which will provide network access for each city, the operators have approached the courts. The companies whose presence is deemed unauthorised run the risk of stranded investments.

### Margin and demand risk resulting from changes in cost economics vs alternate fuels and emerging technologies

The demand from the industrial and commercial consumers faces competition from other/alternate fuels like LPG/ propane, fuel oil, etc. If PNG supplied by the CGD entities to these sectors becomes costlier than the alternative fuels, a portion of these consumers can shift temporarily to the alternative fuels, till the economic parity is achieved, which results in demand volatility as well as pressure on margins to maintain competitiveness with alternate fuels. Thus, ICRA analyses the relative sales mix between industrial / commercial and PNG-D/CNG to determine the sensitivity of sales volumes and cash generation to changes in cost economics. The demand for the CNG and PNG-D segment remains sticky as once the customer has shifted to these fuels, the tendency to go back to alternate fuels is lower. In the CNG segment, the running cost advantage is ~40-45% currently, while the PNG-D segment provides convenience, which has resulted in demand remaining sticky for these segments.

The demand potential of the GAs may witness headwinds from increasing adoption of the EVs in the long term. At present, the Total Cost of Ownership (TCO) of the EVs is higher than the CNG vehicles, which along with limited charging infrastructure has kept the EV adoption limited, with major share of EVs sold comprising two-wheelers and three-wheelers. Going forward, the expected moderation in the overall TCO of the EVs with advancement in battery technology and improvement in charging technology and infrastructure will support EV adoption. Several government initiatives towards increased share of EV buses in the state transport corporation fleets remains a threat to the CNG offtake for the CGD entities, given bus segment is a bulk

consumer of CNG volumes. Additionally, initiatives by Government authorities to push EV adoption can impact the demand for CNG demand in specific GAs. While in the near term, threat from EVs is not expected to be material, the risk is likely to intensify over the long term.

## Business Risk Assessment

### Scale of operations and overall demand potential of GA

Every GA may have some uniqueness in terms of demand potential/ growth drivers for natural gas demand. The returns from the GA for a CGD company is ascertained from its current and potential scale of operations or gas volumes. The factors that are considered include the distance travelled by the average commuter (key driver of CNG demand), population density, presence of industrial/ commercial establishments, and supporting infrastructure in the GA. The initial cost of setting up the pipeline network and other infrastructure may make the project economics non-remunerative in case the market potential is low. Additionally, many cities being bid for do not have many multi-storey buildings as is the case with big cities which pushes up the cost of providing PNG (domestic) connections. Also, in comparison to the bigger cities, the distances travelled by commuters are shorter in the smaller ones, which implies that CNG volumes per vehicle per day are lower. These factors impact the viability and returns of rolling out CGD networks in smaller towns. Even as setting up a CGD network is a capital-intensive activity, scale-up of volumes can remain slow and even a reasonable level of 50-60% customer penetration level is generally achieved only after nine to ten years after the start of operations in most cities. Thus, the entities operating in cities with higher population density, higher industrial and commercial activity and overall higher economic growth will tend to have higher demand potential over the long run. The demand potential of the GA will determine the scale of operations any CGD player can achieve in the long run. A company operating in multiple GAs will also have more geographical diversification in revenue stream and be able to build a higher scale of operations which can translate into higher profitability driven by benefits of operating leverage.

### Gas tie-ups and pipeline connectivity

Over the course of FY2025 and YTD FY2026, the CNG segment witnessed incremental deallocation of APM gas and replacement of part of the APM gas by the NWG. As a result, the CNG segment is witnessing an increased reliance on the imported LNG. Going forward, with the falling trend in the APM gas production in the country, the share of APM gas in the overall gas mix for the CNG segment is expected to further moderate over the medium term. Since the reliance on higher priced gas, i.e., NWGHPHT and imported LNG will rise for the CNG segment, the overall input cost will also rise. The CGD entities have limited headroom to pass on the increase in the input gas costs, as it will be imperative to maintain the overall cost competitiveness for a CNG vehicle over other drivetrains like petrol/ diesel/EVs. Accordingly, tie-up of gas on a long-term basis provides visibility on demand as well as margins and is better from a credit perspective as spot prices are more volatile. Thus, ICRA evaluates the share of spot LNG in the overall gas tie-ups vis-à-vis the gas demand being witnessed by the company. In a scenario of higher share of spot LNG in the overall gas mix, the margin volatility is expected to be higher. Thus, ICRA views the risk for the profitability to be higher for such entities.

For an entity which is setting up operations in a new GA, assessing the connectivity with the national grid or trunk pipeline is critical as there have been several instances in the past where connectivity with the national grid or trunk pipeline has been delayed by months or years compared to the initial estimates. Delay in connectivity, in turn, leads to delays in commencement of the project, leading to weak economics and cash flow mismatches. For grid/trunk pipeline connectivity, a CGD company has to depend on the trunk pipeline owner, who may have several competing projects to execute. Further, the bargaining power of the CGD entity with the trunk pipeline owner remains limited, given the much bigger size of the latter. This apart, even after the pipeline project commences, laying of new pipelines might get delayed because of several reasons including delays in securing right of use (ROU), delays in approvals, local activism, etc.

### Consumer Mix

The credit risk profile of a CGD entity depends upon the gas consumption mix. Domestic gas allocation is provided by the GoI up to 100% of the demand for the PNG-D segment and partly for the CNG segment, which is generally cheaper than imported natural gas and competitive vis-à-vis other fuels. Thus, the pricing pressure is limited in these segments. While recently the allocation of APM gas for the CNG segment has been reduced, the contribution margin for the same still remains higher than the other segments. Entities that have higher PNG-I concentration in their sales volumes are likely to be less profitable on account of the strong competitive pricing pressure from alternate liquid fuels and coal. While the PNG-I segment is the least profitable segment, the volume per customer is very high. The PNG-C segment offers the benefits of greater pricing flexibility and lower customer management efforts (compared to PNG-D as individual volumes in PNG-C are higher here). From the industrial and commercial customers' perspective, the use of gas offers various benefits like cost savings, environment friendliness (gas being a relatively cleaner fuel), higher efficiency, low maintenance costs and operational convenience. The industrial consumers act as anchor customers for CGD companies and provide large volumes in the initial years even as the PNG-D and CNG segments require several years to build commercially viable volumes. Developing CNG stations typically demands substantial capital investment due to land acquisition and the establishment of full-scale facilities. However, the pace of expansion may be constrained by the financial strength of the balance sheet. To overcome this, companies are increasingly adopting the Dealer Owned Dealer Operated (DODO) model, which minimises the capital expenditure for CGD entities and facilitates faster network growth through an asset-light approach. This model can aid achieving a healthier consumer mix by rapid network expansion.

### Project risk and slippages in execution of Minimum Work Programme

The implementation and operation of a CGD network requires approvals from a number of agencies, such as the National Highways Authority of India (NHAI), municipal corporations, public works departments and pollution control board. Obtaining multiple approvals from various civic and Governmental agencies and authorities calls for extensive liaison work, besides time, and may stretch the manpower resources of smaller companies. Moreover, local administration and state governments play a crucial role in facilitating statutory approvals from various agencies. At times, it is the state development authority that allots land for CNG stations at heavy vehicular traffic areas of cities. The state pollution control board encourages the industry to switch from cheaper but polluting fuels like coal to natural gas and the regional transport authority have mandated in the past for conversion of public transport vehicles to CNG. However, these initiatives require strong political will and administrative machinery to implement, and if lacking could well delay a CGD player's project commencement or break-even achievement. Moreover, project economics need to factor in the volatility and escalation in the prices of steel and other commodities, given the long construction and project execution time (typically three to five years) that a CGD project typically requires. Given the multiple approvals required and the long project execution time, the CGD entities remain exposed to project execution risks.

Some of the incumbent CGD companies have participated in the bids for gas distribution projects under the recently concluded bidding rounds as well as through acquisitions as part of their pan-India growth strategy. While entering the new GAs could lower their geographical concentration risk, the same could translate into heightening other risks, given the several challenges posed by the new GAs (as discussed earlier). The impact on their credit profiles would be a function of the potential of its GA, consumption mix, size of capital expenditure, means of finance and bid parameters, in relation to the existing operations. Also, in certain rounds, the entities may have submitted performance bank guarantees of high values to the PNGRB.

In case there is a slippage in execution compared to the MWP[1], PNGRB could encash the bank guarantees, thereby increasing the project cost and impacting the overall project returns for the players. The progress made with respect to MWP is monitored by ICRA and the companies which meet or exceed their targets are viewed favourably.

1 *Minimum Works Programme (MWP) as defined in the authorisation letters for a Geographical Area (GA) lays out details pertaining to the infrastructure to be developed by the CGD entity in the particular GA on a yearly basis for the few years of operations. The infrastructure includes laying of length of steel pipelines, setting up of CNG stations, length of HDPE pipelines and achievement of domestic PNG connections. If the entity fails to meet its MWP commitments,*

According to the PNGRB regulations, the award of CGD networks for new areas has to be done through a competitive bidding process. Under this, along with technical and financial parameters, the bidders are evaluated against a specific set of criteria. The CGD regulation was revised by PNGRB in April 2018 and the revised bidding criteria which was followed in subsequent rounds of bidding is a s given below:

| Bidding Criteria Weightage | Weightage |
|---|---|
| Lowness of transportation rate for CGD (for each year during the network exclusivity) | 10% |
| Lowness of the compression charge for CNG (for each year during the network exclusivity) | 10% |
| Highness of the number of CNG stations to be installed within eight contract years from the date of authorisation | 20% |
| Highness of number of domestic piped natural gas connections to be achieved within eight contract years from the date of authorisation | 50% |
| Highness of inch-kilometre of steel pipeline (including sub-transmission steel pipelines) to be laid within eight contract years from the date of authorisation | 10% |

*Source: PNGRB, ICRA Research*

Prior to the ninth round of bidding, several of the bidders made aggressive bids, with reference to network and compression tariff (at nearly nil rates) as these were the only two parameters in the bidding criteria earlier. The strategy of quoting low tariff exposed the aggressive bidders to competition once the marketing exclusivity period is over; any third-party marketer could use the network of the successful bidder at a nominal cost and sell gas to the current or the new customers in the region. The revised bidding criteria applicable since Round 9 have set floor rates for the transportation rates to prevent unreasonable bidding. Also, these revised criteria emphasise on a shift in focus towards expansion of PNG pipeline and CNG network to ensure better coverage.

As per the earlier bidding criteria, in case of a tie in tariff bid by players, the winner was selected based on the value of the bid bond submitted. Due to the high competition for some GAs, the performance bank guarantees (PBG) bid by the CGD companies were significantly high in some rounds (Rounds 4-6). While the willingness to submit a large guarantee indicates the higher commitment of the players to carry out operations, this also impacts the players by way of bank guarantee charges and margin money for the facilities. A high quantum of PBG also exposes the bid winners to a significant contingent liability in case of any delay/default on the MWP and the inability to meet the service standards. In the worst-case scenario of the guarantees being fully or partially encashed for non-fulfilment of MWP and/or service standards, the same amount in effect would add to the project cost for setting up the network in a particular GA, which could affect the project's viability.

This issue was majorly resolved in the revised bidding criteria notified in April 2018 in which the PNGRB linked the amount of PBG to be submitted by the CGD companies to the population of the GA with the maximum PBG to be submitted being capped at Rs. 50 crore per GA. Also, PNGRB prescribed an annual MWP for the bid winners to achieve in terms of laying of steel pipeline, setting up of CNG stations and providing PNG (domestic) connections in each of the eight MWP years. At the end of every year, as per the April 2018 regulations, PNGRB could encash the value of the PBG equivalent to the pre-decided penalty for under-achievement in each of the first eight years of implementation, which could impact the liquidity profile of the company at the time. Further, the company would also be required to immediately replenish the PBG for the amount encashed by PNGRB.

*PNGRB can invoke the bank guarantees furnished by the CGD entity.*

### Geographic diversification

Geographical diversification across a number of GAs reduces the vulnerability of demand and revenues to risks at any one GA. Accordingly, greater the number of GAs an entity operates in, the better it is from a credit perspective.

**Summary of framework**

| | Strongest | | Weakest |
|---|---|---|---|
| Sales Volume | >= 4.0 MMSCMD | ⇨ | <=0.5MMSCMD |
| Geographical Diversification | Presence in >=5 GAs | ⇨ | Presence in 1 to 2 GAs |
| Consumer mix | Share of CNG sales >=75% | ⇨ | Share of CNG sales <=30% |
| Gas Sourcing Tie-ups/Availability of gas in the region | Share of spot LNG in overall gas mix <10% | ⇨ | Share of spot LNG in overall gas mix >40% |
| Regulatory Risk | Entities with track record of conservative biddings and achieving MWP targets in a timely manner | ⇨ | Entities falling short of MWP commitments or recent aggressive biddings (for example - providing high performance bank guarantees or aggressive expansion targets to PNGRB) |

## Financial Risk Assessment

ICRA analyses the long period past financial performance trends and estimates future financial performance to assess the financial risk exposure of an entity. The financial metrics provide a useful reference not only to evaluate the performance trends of an entity over a given time horizon, but also enable a comparison with its peers. The financial risk assessment is not done in isolation but in conjunction with the business and the industry risks that the entity is exposed to. An entity with low exposure to business and industry risks would generally have stable cash flows and thus would have a higher tolerance to operate with a relatively modest financial risk profile. In contrast, entities that are exposed to high business and industry risks need to maintain a stronger financial risk profile to have an adequate cushion to manage cash flow volatility. The various financial metrices assessed by ICRA could be divided into five categories viz., profitability, leverage and coverage, working capital intensity, liquidity and cash flows. Since the prime objective of the rating exercise is to assess the debt servicing capability of an entity, ICRA draws projections for the rated entity based on the expected movements in operating performance, while factoring in capex/investment requirements and upcoming debt obligations. Depending on the uncertainty around how the various credit drivers could evolve in the future, ICRA carries out sensitivity analysis to assess the impact of the key variables on the various financial metrics.

### Profitability and Earnings Stability

The analysis here focuses on determining the trend in the entity's operating profitability and how these compare versus the peers operating in other GAs. Barring a few exceptions, the incumbents have demonstrated the ability to pass on the increase in gas costs to consumers, albeit with some time lag. Accordingly, while analysing CGD companies, a key metric to analyse is the gross margin (gas sale price - gas purchase price) on a per scm basis. CGD companies strive to maintain the gross margin on a per scm basis even though the operating margins may decline due to higher base effect (on account of the increase in gas

cost). Besides gross margin on an overall blended basis, the same is analysed on a segmental (PNG, CNG) basis, subject to availability of the data, with the objective to detect any pressure on profitability in any of these segments due to the resistance of consumers to price pass through. Further, the return on capital employed (RoCE) needs to be analysed to measure the efficiency with which an entity utilises the capital deployed in its business. An entity's ability to consistently generate RoCE over and above its cost of capital reflects well on its long-term business viability.

It usually takes 3-5 years for a CGD company to develop the infrastructure, including among others, the pipeline network, a city gas station, and CNG stations before commencing operations. PNG-D has low profit margins as lack of competitiveness vis-à-vis LPG (domestic) limits the ability of the CGD companies to increase the prices beyond a certain level. Additionally, the fixed costs incurred for the extensive network to be established in residential areas has a long payback period due to the low billing per household and low conversions in the initial years, even though part of the fixed costs are recovered as deposits. After the start of operations, sales scale-up is typically slow and it takes three to four years to reach a commercially viable level. The slower scale-up of sales and the large upfront capital outlays also mean the payback period of a CGD project is six to seven years.

**Assessment of Return metrics**
[Indicative metrics[2]]

| | Strongest | Weakest |
|---|---|---|
| RoCE | >=25% | <10% |
| Volatility in RoCE | <=10% | >55% |

## Leverage and Coverage Indicators

A CGD project entails large upfront capex, besides which the CGD entities incur a large capex on a regular basis to expand network and increase sales. Accordingly, the objective here is to ascertain the level of OPBDITA in comparison to the overall debt levels, i.e., Total Debt/OPBDITA. A long maturity and structured repayment profile with ballooning of payments, given the gradual scale up of volumes, can partially offset the risk associated with high financial leverage, as the payback period for CGD business can be long. For higher rated CGD companies, inter-alia, ICRA expects these companies to have low financial leverage to offset the high business risk associated with slow build-up in volumes or delays in commencement of operations due to execution risk/ regulatory risk.

Also, the key debt service coverage ratios like interest coverage and debt service coverage ratio are examined to understand the level of cushion the company has to ensure timely debt servicing.

**Assessment of leverage**
[Indicative metrics]

| | Strongest | Weakest |
|---|---|---|
| Indebtedness Ratio | <=0.9x | >3.0x |
| Debt to Profit Ratio | <=0.5x | >5.0x |

[2] *The indicative financial metrics mentioned here and elsewhere in the document are intended to provide a broad overview to the readers regarding what ICRA generally considers as 'relatively strong' or 'relatively weak' metrics. It is, however, possible that an entity has relatively weaker metrices on one or more financial parameters, but its credit risk is assessed to be low because of other mitigating factors, including (but not limited to) stronger metrices on other financial parameters, a healthy business risk profile, strong financial flexibility or a strong promoter group that is willing to extend distress support to it.*

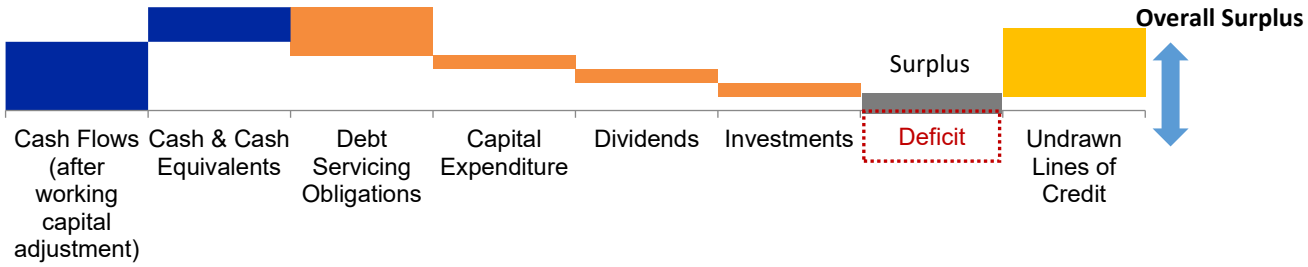
**Assessment of coverage**
[Indicative metrics]

| | Strongest | Weakest |
|---|---|---|
| Interest Coverage | >=18.0x | <2.0x |
| DSCR | >=4.0x | <1.1x |

### Liquidity and adequacy of future cash flows

As CGD companies incur a large capex on a regular basis with the benefits accruing from the same with a lag of a few years, the cash flows are analysed for the upcoming capex requirements and the term loan repayments. The liquidity ratios measure the buffer, which an entity has in the form of cash or cash equivalent with respect to its obligations that can be utilised in case of any temporary cash flow mismatch. The existence of adequate buffers of liquid assets/bank lines to meet the short-term obligations is viewed favourably. In addition, ICRA notes that an entity with strong liquidity can mitigate the impact of any short-term exigencies or events that might adversely impact cash flows in the interim. The entity's liquidity is assessed by its unutilised bank/credit limits and liquid investments. The working capital requirement is usually low. In the domestic PNG segment, receivable days are around 45, while in the commercial & industrial PNG segment they are around 15 days. Inventories remain low and mainly include spares with limited gas stocks. For purchase of gas, the company gets a limited credit period of a few days, where bills are raised on a fortnightly basis.

**Liquidity snapshot over any defined period**




A cash flow statement represents the sources from which cash is generated and its deployment. ICRA analyses the entity's funds flow from operations, cash consumed to fund the working capital, the retained cash flows after paying out dividends or carrying out share buy-backs, and the free cash flows after meeting debt repayment obligations and capital expenditure needs. The cash flow analysis helps in understanding the external funding requirements that an entity has to meet its obligations.

## Other Elements of Credit Risk Assessment

### Tenure mismatches and risks relating to refinancing and interest rates

Large dependence on short-term borrowings to fund-long term investments can expose an entity to significant re-financing risks, especially during periods of tight liquidity. The existence of adequate buffers of liquid assets/bank lines to meet short-term obligations is viewed favourably. Similarly, the extent to which an entity would be impacted by movements in interest rates is also evaluated.

## Financial Flexibility

An entity's financial flexibility (or the lack thereof) is reflected in its ability to access the capital or the money markets at short notice, attract diverse and marquee investors and enjoy the confidence of banks, financial institutions and intermediaries. A strong financial flexibility allows an entity to raise fresh borrowings or refinance the existing ones in quick time and whenever required. Financial flexibility could arise from factors such as an entity's large scale of operations with strong financials, large unencumbered cash flows, unencumbered assets and the flexibility to borrow against such assets, or strong parentage or linkages with a strong group.

In contrast, among the various measures of an entity's depleting financial flexibility, one relates to a high share of pledged promoter shareholding. A sign such as this may imply that the entity might be persuaded to distribute high dividends or support the promoter group through other means to the detriment of its own credit profile. If the promoters fail to repay their loans (availed by pledging of shares) or top-up collateral when required, the lenders could sell the pledged shares. In some cases, this could trigger a change-of-control clause in the rated entity's bond indentures or loan documents and require it to redeem its debt ahead of schedule, creating a liquidity squeeze, besides affecting fresh capital-raising ability. Financial flexibility could also be impacted in cases of adverse industry developments, weakening business profile, or management and governance concerns, which could translate into sharp a decline in market capitalisation, or spike in bond yields and consequently constrain an entity's ability to raise fresh capital or materially increase its cost of capital.

## Foreign Currency Related Risks

For imported gas requirements, the CGD companies are dependent on companies that import gas and provide re-gasification services. Typically, such importers have back-to-back foreign currency-based pricing arrangements with their suppliers. Hence, the pricing charged from domestic users like CGD companies is denominated in dollar. Domestic gas supply is also dollar denominated and the CGD entities experience an increase in rupee cost if the rupee depreciates against the dollar. Thus, CGD entities face the risk of passing on these foreign exchange fluctuations to their consumers. Generally, the CGD companies have back-to-back foreign currency pass-through clauses in contracts with large commercial and industrial consumers. For all other PNG-I, PNG-C, PNG-D, CNG consumers, the impact of depreciation in rupee vis-à-vis the dollar is passed through periodic price hikes. Thus, the ability to take frequent price changes remains crucial. Additionally, for any imports (of compressors, etc), the CGD company may avail buyer's credit for which the hedging policy is assessed.

## Contingent Liabilities/ Off-Balance Sheet Exposures

The likelihood of devolvement of contingent liabilities/ off-balance sheet exposures and the financial implications of the same are evaluated for this. In case of CGD players, the probability of the encashment of bank guarantees by PNGRB for their inability to meet the MWP remains a key point of analysis.

## Event Risks

ICRA recognises the possibility of events such as unrelated diversification, mergers and acquisitions, business restructuring, asset sales and spin-offs, litigations, equity infusion and refinancing, which could have a material impact on the credit profile of an entity. In case of industry-specific risks, e.g., adverse changes in natural gas allocation policy, changes in regulatory guidelines governing the industry, etc, can lead to adverse impact on the credit profile of the entities. Incorporating the impact of such discrete events in the credit rating, from the beginning, is often difficult. Depending on whether and when such events occur, the rating opinion could be substantially different. To take rating decisions in such cases, ICRA applies its analytical judgment based on the rated entity's track record, the credibility of the management and the experience of having seen similar situations play out in other entities. However, given the nature of such events, it is possible that the rating may undergo a material change later, upon the occurrence of the event.

### Parentage

Apart from the standalone credit considerations, the likelihood of extraordinary support coming in from the parent to an entity or the support that an entity is likely to extend to the other Group companies is factored in while assessing the credit profile of the entity. This process involves an assessment of the ability and willingness of the parent to extend support to the entity (and vice versa), in addition to evaluating the entity's own fundamental credit strength. As the CGD sector entails significant business risks, companies backed by strong sponsors, preferably with background in oil and gas business, can be better placed to navigate the risks involved. Besides financial support, a rated entity may benefit from the operational support from the sponsors, which can come in several ways, such as the competitively priced R-LNG tie-ups, co-location of CNG stations in their retail outlets and tap off access from the adjacent gas transmission pipelines.

## Management Quality Assessment

In addition to the industry, business and financial risk analysis, all credit ratings incorporate an assessment of the quality of the rated entity's management and its financial policies.

### Quality of Management and Financial Policies

As a part of its process, ICRA undertakes discussions with the rated entity's management to understand its views on past performance as well as its future plans and strategies, besides the outlook on the industry. Some of the points assessed are:

- Experience of the promoter/ management in the industry
- Commitment of the promoter/ management to the rated entity
- Risk appetite of the promoter/ management and risk mitigation plans
- Policies on leveraging, managing interest rate and currency risks
- Management's past success in introducing new projects and managing changes in the external environment
- Management's plans on new projects, acquisitions and expansions

Periodic interactions with the management help in ascertaining the shifts, if any, in their financial policies.

## Assessment of Environmental, Social and Governance (ESG) Risks

### Environmental (E) and Social (S) Risks

As this methodology highlights, while undertaking credit assessment of entities, ICRA seeks to incorporate all relevant credit considerations into its rating decisions while taking a forward-looking view on the risks and the mitigants. The relevant credit considerations include (sometimes overtly, sometimes covertly) the E&S factors that could affect the rated entity/transaction. While ICRA's analytical approach does not explicitly disaggregate these risks to assess their impact on the rating, these risks are often assessed broadly. Further, it is not always feasible to fully or precisely disaggregate the sub-components of E&S risks in credit analysis since these considerations often tend to overlap.

That said, the materiality of the E&S risks and the time horizon over which they are expected to crystallise differs widely across sectors and entities. In some cases, while the E&S risks could be material but their effect on the credit profile may be muted because of other fundamental strengths of the entity. In other cases, the adverse impact of the E&S risks is likely to play out in the distant future, and hence these considerations do not necessarily weigh on the rating today—with the expectation that when these risks manifest in the distant future, the rated entity by then would possibly adapt itself by realigning its business model.

While evaluating E&S risks, ICRA's objective is only to assess the direct and indirect risks that an entity faces and how it already is or is intending to mitigate the impact of such risks on its credit profile. As an example, ICRA only assesses whether an entity is exposed to physical climate risks, or carbon transition risks such as those arising from changes in regulations or other environmental and social risks, and seeks to understand the various mitigation and adaptation approaches that the entity is implementing to mollify these risks. Notwithstanding the above, as an example, it is possible that even if an entity A has a higher carbon footprint than entity B, it does not materially affect ICRA's credit opinion on entity A. This is because ICRA's credit opinion on an entity considers a wide gamut of credit-relevant factors, and the E&S factors are only one among those.

CGD players face carbon transition risks as a slowdown in the incremental investments in the fossil fuel extraction may lead to lower gas availability and development of alternative fuel sources. While natural gas is an environment friendly fuel relative to the crude oil derivatives, its contribution to Green House Gas (GHG) emission remains a key risk as customers may look to shift to renewable sources of energy. At present, the CNG segment remains the mainstay for the CGD sector entities' offtake and increasing adoption of the EVs may impact the incremental growth in the CNG segment. However, with current cost of ownership for EVs being higher than the CNG powered vehicle, the pace of adoption is expected to remain slow in the near to medium term. Going forward, with advancement in battery technology expected to result in lowering of the Total Cost of Ownership (TCO) for EV vehicles, the transition of users to EVs will remain a key environmental risk for the entities.

Social considerations for CGD entities mainly include the potential shift of consumers to EVs as they become aware of the climate impact of using natural gas as a fuel. Additionally, the Right of Way (RoW) required for setting up gas pipelines, which may be met through social resistance and may delay the execution remain a key social risk.

### Governance Practices

A sound corporate governance structure attempts to distinguish the power and responsibilities between the Board of Directors and the management. The constitution of an entity's Board and the Board's participation in strategy formulation, besides the entity's adherence to legal and statutory compliance requirements are factored in during credit assessments. ICRA seeks to gain a qualitative understanding of an entity's commitment to following transparent and credible practices by the way its financial statements are reported, level of disclosures, consistency in communication and openness in sharing information during the credit rating exercise. Besides, the corporate group structure (whether simple or complex), the rated entity's related party transactions and instances of supporting group entities at the expense of debt holders are assessed.

## Summing Up

ICRA's credit ratings are symbolic representations of its current opinion on the relative credit risk associated with the instrument being rated. This opinion is arrived at after following a detailed evaluation of the entity's business and financial risks, its likely cash flows and the adequacy of such cash flows vis-à-vis the entity's debt servicing obligations and other funding requirements. ICRA's rating approach assesses the entity's management quality and governance practices. In addition to these considerations, an entity's credit rating may be influenced by its ownership, the nature of linkages with its parent or group entities, degree of financial flexibility, the corporate legal structure, track record of operations and that of debt servicing, and vulnerability (if any) to discrete event risks.

## Annexure

**Summary of rating factors and an example to illustrate the key building blocks of a credit rating**

| | | Strong | | | Comfortable | | | Adequate | | | Moderate | | | Weak | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Industry Risk** | Industry Position | | | | | | | | | | | | | | | |
| **Business Risk** | Scale | | | | | | | | | | | | | | | |
| | Geographic Diversification | | | | | | | | | | | | | | | |
| | Competition from Liquid Fuels | | | | | | | | | | | | | | | |
| | Gas Sourcing | | | | | | | | | | | | | | | |
| | Regulatory Risk | | | | | | | | | | | | | | | |
| **Financial Risk** | Profitability and Earnings Stability | | | | | | | | | | | | | | | |
| | Leverage | | | | | | | | | | | | | | | |
| | Coverage | | | | | | | | | | | | | | | |
| | | **Enhance** | | | | | **Support/ Neutral** | | | | | **Hinder** | | | | |
| **Do these factors enhance or hinder the credit profile?** | Diversification | | | | | | | | | | | | | | | |
| | Refinancing Dependence, Liquidity and Financial Flexibility | | | | | | | | | | | | | | | |
| | Foreign Exchange Risk | | | | | | | | | | | | | | | |
| | Financial Policy | | | | | | | | | | | | | | | |
| | Management, Governance & Reporting | | | | | | | | | | | | | | | |
| | | **Very High** | | | | **High** | | | | **Moderate** | | | | **Low** | | |
| **Parent Support** | Likelihood of Parent Support | | | | | | | | | | | | | | | |
| | Rating of Parent | AAA | AA+ | AA | AA- | A+ | A | A- | BBB+ | BBB | BBB- | BB+ | BB | BB- | B/ C category | |
| | **Final Rating** | **AAA** | **AA+** | **AA** | **AA-** | **A+** | **A** | **A-** | **BBB+** | **BBB** | **BBB-** | **BB+** | **BB** | **BB-** | **B/ C category** | |

*The above graphic is only for illustration purpose and does not represent a rating output from a formulaic model. The ratings assigned by ICRA are determined by Rating Committees based on both quantitative and qualitative considerations*.

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## ABOUT ICRA LIMITED

ICRA Limited was set up in 1991 by leading financial/investment institutions, commercial banks and financial services companies as an independent and professional investment Information and Credit Rating Agency.

Today, ICRA and its subsidiaries together form the ICRA Group of Companies (Group ICRA). ICRA is a Public Limited Company, with its shares listed on the Bombay Stock Exchange and the National Stock Exchange. The international Credit Rating Agency Moody's Investors Service is ICRA's largest shareholder.

For more information, visit www.icra.in and www.icraresearch.in

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