

April 22, 2026

CG Semi Private Limited: [ICRA]AA- (Stable); assigned

Summary of rating action

Instrument*	Current rated amount (Rs. crore)	Rating action
Issuer rating	-	[ICRA]AA- (Stable); assigned
Total	-	

*Instrument details are provided in Annexure II

Rationale

The assigned issuer rating factors in CG Semi Private Limited’s strong parentage, with CG Power and Industrial Solutions Limited (parent; CGPISL) holding around a ~93% stake in the company. The balance stake is held by the other joint venture partners – Renesas Electronics Americas Inc. (~6% stake) and Stars Microelectronics (~1% stake). The JV partners provide the company access to advanced technology, product qualification expertise and assured business volumes through an offtake commitment from Renesas during the initial ramp-up period.

The ratings favourably factor in a positive industry outlook, strong policy support, and the long-term growth prospects of the semiconductor assembly and testing sector, together with the early-stage but steadily progressing project execution at CG Semi. CG Semi’s operating profile is expected to benefit from the phased expansion of its G1 and G2 manufacturing facilities, which will enhance the scale over the medium term. The company is developing capabilities across both lead-frame and substrate-based advanced packaging solutions, supported by the hiring of experienced professionals from the global outsourced semiconductor assembly and testing (OSAT) industry and a leadership team with deep sectoral understanding.

The ratings also draw comfort from the fiscal support secured by the company, including a Central assistance of 50% under the India Semiconductor Mission (ISM) and 20% support from the state, which together significantly reduce the upfront capital burden and improve the long-term viability of the project.

However, the rating remains constrained by the capital-intensive nature of the OSAT operations, the long gestation period associated with the setting up of new semiconductor manufacturing facilities, and the dependence on continuous, large-scale investments in equipment and technology. The sizeable capex outlay — to be executed in multiple phases through 2030 — exposes the company to risks of cost overruns, delays in capacity stabilisation and variability in product-mix realisation. Further, as the operations are currently at a pre-revenue stage, the company has incurred pre-operative losses and will continue to be exposed to execution and ramp-up risks until there is a meaningful scale-up of volumes.

ICRA also notes that CG Semi will operate in a highly competitive global OSAT market, which is dominated by large multinational players with established scale, longstanding customer relationships and advanced technology ecosystems. While India’s cost advantages, strong domestic demand and policy incentives support the competitiveness of domestic OSAT players, CG Semi’s ability to achieve customer qualifications, diversify its revenue base beyond the anchor offtake partner and penetrate the higher complexity application segments — particularly automotive — will be demonstrated only over time and remains a key credit monitorable.

Despite these risks, the rating derives comfort from the strong parental support of CG Power (Murugappa Group), the close management oversight and the favourable demand outlook for semiconductor packaging, supported by the Government of India’s (GoI) push to localise the value chain. The company’s liquidity profile is expected to remain adequate, underpinned by the planned equity infusion, the subsidy inflows and the phased nature of the capex which is aligned with facility expansion and capacity ramp-up milestones.

The Stable outlook on CG Semi's rating reflects ICRA's expectation that the company will continue to benefit from a favourable demand environment for semiconductor assembly and testing services, supported by its phased capacity expansion and the strategic backing of its joint venture partners. The outlook also factors in the visibility provided by the offtake commitment from Renesas, the strong financial support from CG Power, and the extensive fiscal incentives under the India Semiconductor Mission, which collectively underpin the company's medium-term growth prospects despite the inherent execution risks associated with its large-scale capex programme.

Key rating drivers and their description

Credit strengths

Strong fiscal support from Central and state governments reducing funding risk - The company's OSAT project benefits from substantial fiscal assistance, which significantly mitigates the funding and implementation risks. CG Semi has entered into a fiscal support agreement (FSA) with the ISM, under which the project is eligible to receive subsidy support equivalent to 50% of the qualifying capital expenditure. In addition to the Central assistance, the project is expected to benefit from the 20% fiscal support from the state government. thereby materially reducing the upfront capital outlay and strengthening the overall project viability. This multi-tiered government backing enhances the financial flexibility and provides a strong cushion against cost overruns, reinforcing the company's credit profile.

Strategic support from JV partners - The company derives considerable strength from its partnerships with Renesas Electronics and Stars Microelectronics, both of which provide critical technological and operational support. The partnership with Renesas has facilitated comprehensive assistance across multiple areas, including technology transfer, facility setup, employee training and product qualification, thereby significantly strengthening the technical readiness and process robustness of the proposed OSAT operations. In addition, the offtake agreement with Renesas provides assured business volumes during the initial ramp-up phase, thereby offering revenue visibility in the early years. Further, Stars Microelectronics, despite holding a minority stake, has extended meaningful technological support in the areas of process design, packaging expertise and knowledge transfer. Collectively, these partnerships strengthen CG Semi's execution capability, enhance product reliability and mitigate initial operational and market risks, thereby improving its competitive positioning.

Strong parentage in the form of CG Power - The company benefits from the strong parentage of CG Power & Industrial Solutions Limited, part of the Murugappa Group, which provides a materially supportive framework for the execution of the capital-intensive OSAT project. CG Power's robust balance sheet, established credibility with lenders and demonstrated track record in executing large industrial projects strengthen CG Semi's ability to mobilise funding and manage execution risks effectively. The backing of GG Power further enhances the financial flexibility, given the Group's conservative financial philosophy, diversified business base and long-standing banking relationships. The association with these financially strong entities is expected to support timely equity infusion, instil confidence among financial institutions and offer operational oversight during project implementation, thereby improving the overall credit profile of CG Semi.

Credit challenges

Competition from established global OSAT players and emerging domestic entrants - The company faces significant competitive pressure from large, established global OSAT providers that possess deep technical expertise, diversified customer bases and substantial scale advantages. These global players have well-established capabilities in advanced packaging technologies, extensive manufacturing footprints, and strong relationships with major semiconductor designers and integrated device manufacturers (IDMs), which may limit CG Semi's ability to rapidly gain market share, particularly in specialised or high-performance segments. Competition is also expected to intensify within the domestic market, as multiple Indian entities — supported by similar incentives under ISM — are simultaneously building assembly, testing, marking, and packaging (ATMP)/OSAT capacities. Such projects, such as the ones led by the Tata Group and Micron, have intensified domestic

competition and may result in pricing pressures, talent competition and the need for continuous technology upgradation. The combined presence of global incumbents and emerging domestic players could therefore constrain CG Semi's competitive positioning, especially during the initial years of operations when capacity ramp-up and customer acquisition remain critical.

Project execution, high capex intensity and marketing risks associated with OSAT project - The company faces substantial capital-related risks owing to the inherently high capex intensity of OSAT facilities, which require significant upfront investment in specialised equipment, cleanroom infrastructure and advanced packaging technologies. Despite the availability of sizeable fiscal support from both the Central and state governments, the residual funding requirement remains large, exposing the project to risks related to cost overruns, delays in equipment installation, supply-chain bottlenecks and potential escalation in construction or machinery costs. Further, the company's ability to execute the project within the planned timelines will be critical, as any delay may defer the revenue generation and prolong the payback period. The long gestation nature of semiconductor backend units, coupled with the need for continuous technology upgrades, heightens the overall capital risk profile, especially during the initial years prior to capacity stabilisation and customer qualification.

Environmental and social risks

Environmental considerations - CG Semi is exposed to environmental compliance requirements typically associated with semiconductor assembly and testing operations, including stringent norms related to chemical handling, effluent treatment, water usage and pollution control. While the company is not directly exposed to climate-transition risks linked to fuel-intensive sectors, it could face indirect pressure as global semiconductor customers increasingly tighten their sustainability expectations. Further, compliance with evolving environmental regulations will also necessitate periodic capex towards cleanroom upgrade, waste management systems and pollution control infrastructure. Nevertheless, CG Semi has initiated measures to limit its environmental footprint, including the adoption of energy-efficient infrastructure and planned investments in R&D to support more sustainable packaging solutions. These are expected to partly mitigate the company's long-term environmental risk exposure.

Social considerations - CG Semi's social risks primarily relate to its ability to maintain a stable and skilled workforce, given the high technical expertise required in semiconductor assembly and testing. The key focus areas include ensuring employee safety, managing specialised talent and protecting sensitive customer data. While the company is not exposed to product-recall risks typically associated with end-product manufacturers such as automotive OEMs, it must consistently meet stringent quality and reliability standards prescribed by global semiconductor customers. Nevertheless, early initiatives to build a competent technical team and implement robust operational systems provide some comfort in mitigating these social-related risks.

Liquidity position: Adequate

CG Semi's liquidity position is expected to remain adequate, given that it is a project-stage entity with minimal ongoing operations and capital expenditure is to be met through a mix of equity infusion, committed government subsidies and debt to be availed at a later stage of project implementation. This funding mix provides reasonable visibility on liquidity during the construction phase and reduces the reliance on external borrowings in the initial years of operation.

Rating sensitivities

Positive factors – Timely completion of project without any material time/ cost overruns followed by the stabilisation of operations, and/or improvement in the credit profile of CG Power – the immediate parent – may result in improvement in rating.

Negative factors – Downward pressure on the rating could arise if i) there are significant delays in commissioning and/or material cost overruns, or ii) the credit profile of parent (CG Power) weakens or iii) the linkages between the parent and CG Semi weaken.

Analytical approach

Analytical approach	Comments
Applicable rating methodologies	Corporate Credit Rating Methodology
Parent/Group support	ICRA has arrived at the company’s rating after factoring in a parent subsidiary rating notch-up using the credit view of the parent company i.e. CG Power & Industrial Solutions Limited.
Consolidation/Standalone	For arriving at the ratings, ICRA has considered the standalone financials of CG Semi Private Limited.

About the company

CG Semi Private Limited is an entity formed by CG Power and Industrial Solutions Limited (holding company; 92.3% stake), Renesas Electronics America Inc. (6.8% stake), and Stars Microelectronics (Thailand) Public Co., Ltd. (0.9%). The company specialises in OSAT services and aims to offer comprehensive test services on a global scale.

CG Power and Industrial Solutions Limited (CGPISL) is a part of Tube Investments of India Limited (TIIL; rated [ICRA]AA+ (Stable)/ [ICRA]A1+) and the Murugappa Group. Renesas Electronics Corporation (Renesas) is a premier supplier of advanced semiconductor solutions and Stars Microelectronics (Thailand) Public Co. Limited (Stars Microelectronics) is a Thailand-based OSAT provider. The three entities signed a joint venture agreement to set up a joint venture to build and operate an OSAT facility in India. The Union Cabinet approved the project under India’s Semiconductor scheme on February 29, 2024.

The company will receive wafers from various integrated device manufacturers (IDMs), which will then undergo back-grinding, assembly, packaging and testing, before being returned to the respective customers as per the IDM’s specifications. The company intends to enter into long-term contracts with IDMs for these services. Given the stringent qualification requirements and customised processes, the onboarding of IDMs is a time-intensive process, with contract finalisation typically taking 1–2 years. The company’s marketing efforts and IDM onboarding are currently underway, with commercial production at one of its facilities (G1) expected to commence by H2 FY2027.

Key financial indicators (audited) – Not applicable as it is a project state entity

Status of non-cooperation with previous CRA: Not applicable

Any other information: None

Rating history for past three years

Instrument	Current rating (FY2027)			Chronology of rating history for the past 3 years					
	Type	Amount rated (Rs. crore)	April 22, 2026	FY2026		FY2025		FY2024	
				Date	Rating	Date	Rating	Date	Rating
Issuer rating	Long term	-	[ICRA]AA-(Stable)	-	-	-	-	-	-

Annexure I: Disclosure pursuant to the SEBI Circular SEBI/HO/DDHS/DDHS-PoD-2/I/4685/2026 dated February 10,2026

ICRA rated Instruments fall under regulatory purview of various Financial Sector Regulators (FSR) as under:

Sr. No.	Instrument	FSR
1	Listed/Proposed to be listed Bonds/Debentures/Preference Shares (all securities)	SEBI
2	Unlisted/Proposed to be unlisted Bonds/Debentures/ Preference share (all securities)	MCA
3	Listed PTCs / Securitisation Notes (originated by entities regulated by RBI) (*)	SEBI
4	Listed PTCs / Securitisation Notes (originated by entities not regulated by RBI) (*)	SEBI
5	Unlisted PTCs / Securitisation Notes (originated by entities regulated by RBI) (*)	RBI
6	Listed Commercial Paper and NCDs with original maturity less than 1 year	RBI
7	Unlisted Commercial Paper and NCDs with original maturity less than 1 year	RBI
8	Loan Facilities (Fund/Non-Fund Based) from Bank / NBFCs/ NHB/ FIs (\$)	RBI
9	External Commercial Borrowings/Loans from overseas branches of Indian Banks/other similar borrowings	RBI
10	Certificates of Deposit	RBI
11	Fixed Deposits raised by NBFCs, Banks, HFCs, FIs	RBI
12	Fixed Deposits raised by corporates other than NBFCs, Banks, HFCs, FIs	MCA
13	Inter Corporate Deposits/Loans extended by Corporates	MCA
14	Listed Security Receipts	SEBI
15	Unlisted Security Receipts	RBI
16	Unlisted PTCs / Securitisation Notes (originated by entities not regulated by RBI) (*)	Investor-side Regulator such as IRDAI, PFRDA (%)

(*) Includes securitisation transactions involving assignee payout, acquirer's payout.

(\$) Includes bank facilities such as liquidity facility, second loss facility that are part of securitisation transactions.

(%) These ratings were assigned prior to the introduction of SEBI CRA Circular dated Feb 10, 2026 and accordingly, investor side FSRs have been mentioned.

Other Activities offered by ICRA fall under regulatory purview of various Financial Sector Regulators (FSR) as under:

Sr. No.	Activity Name	FSR
1	Credit Ratings for Capital Protection Oriented Schemes (by Mutual Funds and AIFs)	SEBI
2	Credit quality ratings (CQRs) for Mutual Fund Schemes and Schemes of AIFs	SEBI
3	Independent Credit Evaluation (ICE)	RBI
4	Expected Loss Ratings (For Loan Facilities [Fund/Non-Fund based] from Banks/NBFCs/NHB/FIs)	RBI
5	Expected Loss Ratings (Listed / Proposed to be listed Bonds / Debentures / Preference Shares (all securities))	SEBI
6	Expected Loss Ratings (Unlisted / Proposed to be unlisted Bonds/ Debentures / Preference Shares (all securities))	MCA
7	Credit Rating of Borrowing programme	(@)
8	Issuer Ratings	(#)

9	Monitoring Agency	SEBI
10	Research activities, incidental to rating such as research for Economy & Industries (permitted by SEBI vide SEBI Master Circular for CRAs)	NA

(@) The rated instrument may involve issuance of different instruments such as debt securities (listed or otherwise), bank loans, commercial paper (listed or otherwise), etc. The regulator of the instrument can only be determined upon issuance. Accordingly, ICRA shall capture the rated quantum details along with names of respective FSR in the press release(s) after the issuance(s) of the instruments.

(#) Since no instrument is being rated, FSR is not applicable. The rating scale and definitions stipulated in SEBI Master Circular for CRAs are being followed.

Disclosure: SEBI’s grievance redressal/dispute resolution and SEBI investor protection mechanisms such as SCORES and ODR shall not be available for activities and instruments which fall under the regulatory purview of Financial Sector Regulators other than SEBI.

Complexity level of the rated instruments

Instrument	Complexity indicator
Issuer rating	Not Applicable

The Complexity Indicator refers to the ease with which the returns associated with the rated instrument could be estimated. It does not indicate the risk related to the timely payments on the instrument, which is rather indicated by the instrument’s credit rating. It also does not indicate the complexity associated with analysing an entity’s financial, business, industry risks or complexity related to the structural, transactional or legal aspects. Details on the complexity levels of the instruments are available on ICRA’s website: [Click here](#)

Annexure II: Instrument details

ISIN	Instrument name	Date of issuance	Coupon rate	Maturity	Amount rated (Rs. crore)	Current rating and outlook
NA	Issuer rating	NA	NA	NA	-	[ICRA]AA- (Stable)

Source: Company

Annexure III: List of entities considered for consolidated analysis – Not applicable

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