

## AECI Limited

Rated Entity / Issue	Rating class	Rating scale	Rating	Outlook / Watch
AECI limited	Long term Issuer	National	A+(ZA)	Stable Outlook
AECI Limited	Short term issuer	National	A1 (ZA)	--

### Rating Rationale

The rating upgrade on AECI Limited ("AECI", "the group") reflects its strong market position, where it is at least among the leaders in certain core markets, and increasing business diversification. This is further supported by strong cash flow generation and modest forward-looking leverage levels.

AECI is a leading manufacturer and supplier of mining explosives and chemicals in Africa. Specifically, its mining explosives business is one of the five largest global suppliers of commercial explosives. The group's business profile also benefits from the increasing end-market and geographic diversification of revenues as it continues with its acquisition strategy to enhance its chemicals franchise. GCR does, however, note the group's relative concentration of sales generated by its Mining Solutions businesses and high exposure to African markets (84% of revenues including South Africa). Positively, long standing client relationships and price competitiveness have helped to stem volume erosion in very challenging years.

GCR favourably considers the group's resilient operational performance and strong cash flow generation capabilities. AECI's continued focus on its cost optimisation program has allowed it to largely defend its EBITDA margin against volatile volumes and raw material input cost pressure, which has seen EBITDA margins maintained around 11% to 13% over the review period. Growth in revenues and earnings of late have been partly uplifted by recent acquisitions, which GCR expects to make increasing contributions as efficiencies take effect. Nevertheless, GCR estimates that margins are likely to show little progress over the next year as weak trends in some sectors persist, combined with anticipated restructuring costs at certain businesses.

AECI has demonstrated a credible track record of maintaining a moderate leverage profile. The group's robust balance sheet has helped to accommodate sizeable growth capex amid difficult trading conditions. R4.1bn was cumulatively added to gross debt in FY18, resulting in weaker net debt to EBITDA of 163% from 19% in FY17, whilst operating cash flow to total debt dipped to 35% (FY17: 69%) and interest coverage (EBITDA/net interest) reduced to 7.2x (FY17: 13.3x). These metrics, however, remain well within debt covenants, while GCR expects that sustained strong cash flows should facilitate gradual deleveraging going forward.

GCR considers AECI's liquidity to be strong. This is supported by sizable cash reserves and low debt maturities, resulting in a liquidity sources-to-uses ratio of 2x through to FY20. However, GCR's view is somewhat tempered by a large debt maturity in FY21 and the risk of cash outflows related to additional large acquisitions as per the growth strategy.

## Outlook Statement

---

The Outlook is Stable. GCR expects future earnings and cash flow generation to benefit from incremental contributions from recent acquisitions and a continuous focus on operating efficiencies despite volatility in its end markets. This in parallel with a return to normalised levels of capex should see leverage metrics improve and liquidity remain strong.

## Rating Triggers

---

GCR could increase the ratings if AECL demonstrates a sustained uplift in EBITDA margins leading to a material improvement in earnings. Further, meaningful expansion in developed market operations and/or sector diversity could also support improved ratings. The ratings could be lowered if a severe deterioration in operating performance and/or increase in debt leverage leads to a sustained weakening in credit metrics.

## Analytical Contacts

---

<b>Primary analyst</b> Johannesburg, ZA	Sheri Morgan morgan@GCRratings.com	Senior credit analyst +27 11 784 1771
<b>Committee chair</b> Johannesburg, ZA	Eyal Shevel shevel@GCRratings.com	Sector head: Corporates Ratings +27 11 784 1771

## Related Criteria and Research

---

Criteria for the GCR Ratings Framework, May 2019  
Criteria for Rating Corporate Companies, May 2019  
GCR Country Risk Scores, June 2019  
GCR Corporate Sector Risk Scores, June 2019

## Ratings History

---

AECL Limited					
Rating class	Review	Rating scale	Rating class	Outlook	Date
Issuer Long Term	Initial	National	A <sub>(ZA)</sub>	Stable	July 2015
	Last	National	A <sub>(ZA)</sub>	Stable	May 2018
Issuer Short Term	Initial	National	A1 <sub>(ZA)</sub>	-	July 2015
	Last	National	A1 <sub>(ZA)</sub>	-	May 2018

## ANALYTICAL ENTITY: AECI LIMITED

---

AECI, based in South Africa and listed on the JSE, is a leading manufacturer and distributor of industrial explosives and chemical related products, including technical services. The group has 17 businesses grouped under five operational pillars serving a wide range of end markets including mining, industrial, agriculture and construction.

1) Mining Solutions: AECI is a global producer of explosives and related initiating products, which the group considers to be one of its most important profit contributors. The segment also makes surfactants for explosives manufacture and supplies metal extraction chemicals.

2) Water & Process: Provides water treatment solutions across Southern Africa, to both public and private entities.

3) Plant & Animal Health: This segment produces crop protection products, as well as plant nutrients and additional services, including agrochemical formulation.

4) Food & Beverage: This segment only has local presence and supplies ingredients and commodities to the dairy, beverage, wine, meat, bakery, health and nutrition industries, and also manufactures and distributes juice-based products and drinks.

5) Chemicals: This operating pillar is comprised of six distinct businesses which supply chemical raw materials to a diverse range of end-markets.

## OPERATING ENVIRONMENT

---

### Country risk

AECI's country risk score of '7' reflects a blended weighting of its revenue breakdown between South Africa (60%), Sub-Saharan Africa (24%) and the rest of the world (16%).

### Sector risk

South Africa based-AECI's sector risk score of '4' blends the industrial services company's exposure to the mining (est. 48% of revenues), agricultural (est. 20% of revenues) and manufacturing (est. 31% of revenues) end-markets.

## BUSINESS PROFILE

---

The business profile reflects the group's strong business position in the global explosives market and increasing chemicals diversity, albeit the portfolio is still exposed to sector concentration.

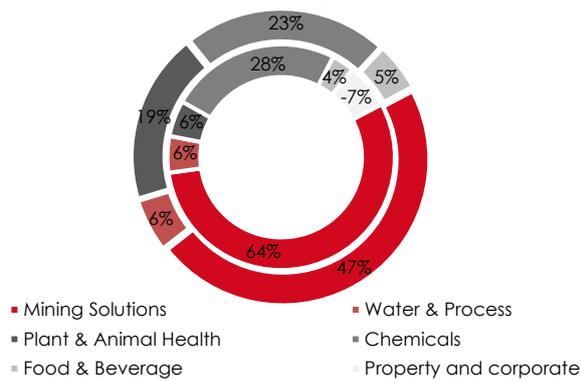
---

### Competitive position

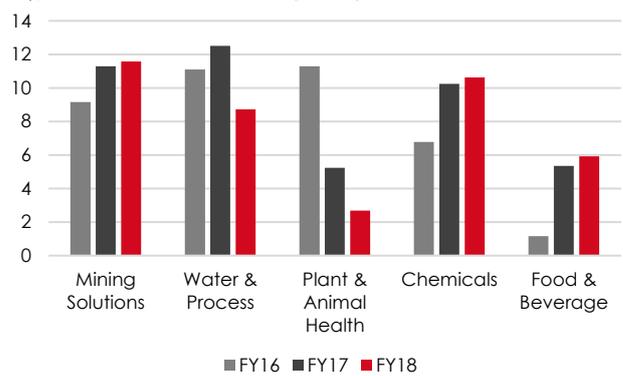
#### ❖ Solid position in global industrial explosives and increasing business diversity

The ratings recognise AECI's strong market positions, where it is at least among the leaders in certain core markets. Specifically, its mining explosives business (AEL Intelligent Blasting Limited; "AEL") is one of the five largest global suppliers of commercial explosives, initiating systems and blasting services and technology for the mining, quarrying and construction industries. AEL retains a particularly strong market foothold in Africa and continues to grow its presence internationally. In FY18, the group purchased an explosives company in Brazil, for USD6.3m, which allows entry into the Latin American region. Overall, explosives represented 39% of total revenues and 39% of earnings in FY18 (FY17: 42% and 38%). The group also takes advantage of its mine-to-mineral offerings through the value chain, with the mining chemicals sub-segment (part of the overall Mining Solutions pillar) partially benefiting from cross-selling synergies (9% of total revenues in FY18). GCR is of the view that AECI's global footprint, innovation capabilities, and long-standing customer relationships with key players in the mining industry, solidly positions it to largely defend its contract volumes during challenging times.

Revenue (outside), Operating profit (inside) FY18

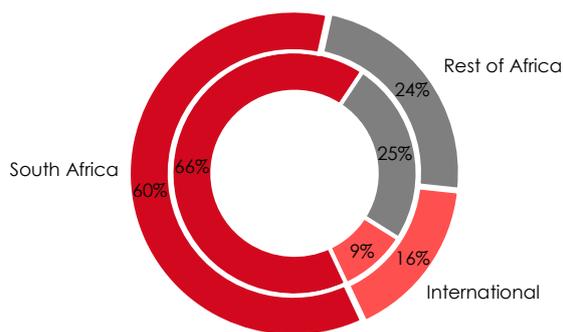


Operating margin by sector

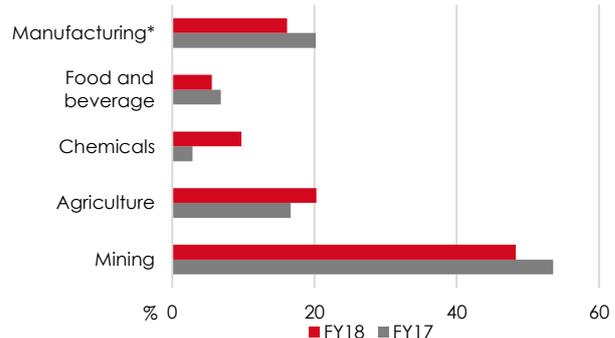


Notwithstanding the group's diverse end-market exposures, this is partly undermined by the group's concentration of sales generated by the mining industry in general (48% of revenues), which continues to experience downside headwinds in South Africa in particular. This risk is partly mitigated by the well-diversified exposure to minerals mined (PMG's: 21%; gold: 20%; coal: 19%; copper 19%; iron ore 8%; diamonds 5%) and limited customer concentrations (largest 10%). GCR also favourably views AECI's wide geographic spread by revenue (25 countries), with a greater 40% derived outside of South Africa in FY18 (FY17: 34%), although the high exposure to emerging African markets (84% of revenues including South Africa) remains a relative weakness.

Revenue by region: FY18 (outside) FY17(inside)



Revenue by end market



\*Includes other.

Operations evidence increasing diversity, as the group continues with its strategy to further weigh the portfolio toward its chemicals franchise. This has entailed a number of bolt-on acquisitions, with the group concluding the two largest acquisitions in its history in FY18 (at a combined R4bn) of Much Asphalt and European based Schirm GmbH. Schirm's competitive advantage lies in its position as the largest provider of external agrochemical formulation services in Europe and its highly scalable business model (low cost synthesis processes convert customers' raw materials into chemical products). This business could give the group meaningful diversity over the medium term, as demand trends for crop protection chemicals remain favourable given population growth and rising consumption of food, as well as its geographic seasonality benefits. To this end, the business could enhance capacity in the second half of the year to counter-match South African agriculture production. Much Asphalt is Southern Africa's largest supplier of asphalt products, a key input in the building of roads, and also manufactures a range of complementary products for construction use. This addition is viewed to be complementary to AECI's existing array of commodity and speciality chemicals, but cognisance is taken of the severe structural difficulties currently facing the local construction industry.

Overall, while the other businesses provide diversification benefits to the group and have the potential for long term growth (with some benefiting from cross-selling synergies), GCR broadly sees weaker market positions in these segments (and customer concentrations) and as such currently do not materially contribute to the group's credit profile.

Nevertheless, to the extent that these businesses do achieve greater scale and profitability, this could alleviate some of the sector concentration and further enhance geographic diversity, which may improve the business profile.

## Management and governance

Considered neutral to the ratings.

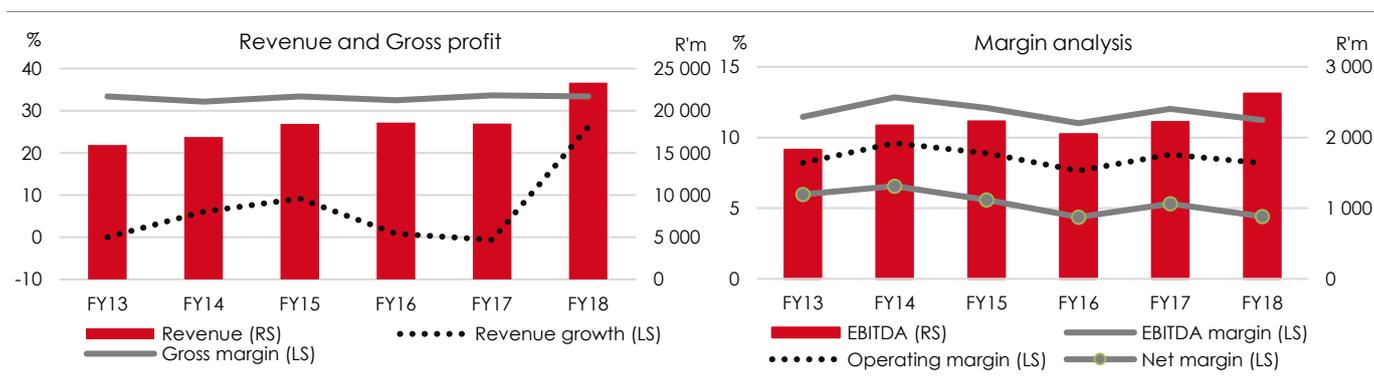
## FINANCIAL PROFILE

The strong financial profile is underpinned by management's credible track record of maintaining moderate leverage, strong liquidity profile, as well as stable profit margins amidst somewhat challenging markets.

## Earnings performance

### ❖ Track record of resilient operational performance and strong cash flow generation

AECI's revenues have come under pressure over the last few years owing to weakness in key operating markets. Positively, improved global mining activity and contributions from the two acquisitions added to the 26% increase in revenue to R23bn in FY18, of which 9% stemmed from organic growth. The group's continued focus on its cost optimisation program has allowed it to largely defend its EBITDA margin against volatile volumes and raw material input cost pressure. This has seen AECI maintain EBITDA margins around 11% to 13%, which is generally in range with similar domestic industrial chemical peers. In FY18, margins were pressurised somewhat by delayed start-up costs in respect of Schirm's expanded operating base, although with this now bedded down management is expecting a better performance from the recently integrated new businesses. Nevertheless, as a result of weak trends in the water and agricultural sectors on account of the persistent drought conditions combined with anticipated restructuring costs at certain businesses, GCR estimates that margins are likely to show little progress over the next year. Given the volume-driven nature of profits, GCR expects that the group's continued cost-efficiency measures and streamlining of acquisitions, will allow performance to remain resilient. In the same respect, AECI remains highly cash generative, demonstrated even in years when profitability has come under pressure. GCR expects the group to continue generating strong discretionary cash flows, which takes into account management's priority on controlling working-capital turnover.



## Cash Flow & Leverage

### ❖ Strong cash flows continue to support moderate leverage

On account of the latest acquisitions, R4.1bn was cumulatively added to gross debt in FY18, resulting in weaker credit metrics. Net debt to EBITDA registered at a higher 163% from 19% in FY17, whilst operating cash flow to total debt dipped to 35% (FY17: 69%) and interest coverage (EBITDA/net interest) reduced to 7.2x (FY17: 13.3x). These metrics,

however, remain well within debt covenants, as per the general agreement terms across all bank funders, stipulating a net debt to EBITDA limit of 2.5x and interest cover to EBITDA of more than 3x. DMTN notes are not subject to covenants, but benefit from the conservative capital policy on the bank lines. GCR does expect that AECI's stable profitability and demonstrated ability to generate strong cash flows will facilitate gradual deleveraging going forward, that should see net debt to EBITDA trend below 1.5x absent large debt-funded acquisitions. That said, GCR does consider there to be comfortable headroom in the financial policy as the group maintains its bolt-on acquisition strategy, particularly as management has established a credible track record of maintaining a moderate leverage profile. This also takes into account GCR's adjusted future debt figures, which includes around R500m of operating leases and the R31m put option (exercisable in 2023) representing the group's right to buy out the non-controlling interest in Much Asphalt.

**Table 1: Key leverage credit metrics**

	FY14	FY15	FY16	FY17	FY18
Net debt : EBITDA (%)	30.7	52.8	14.5	19.1	159.4
OCF : total debt (%)	101.6	37.4	106.2	68.8	34.9
EBITDA : net interest (x)	14.5	11.9	9.5	13.3	7.2

As expected, management refinanced the initial bridging loans undertaken for the 2018 acquisitions with term facilities with longer tenors. This has notably pushed out the debt maturity profile, with only R456m/8% of total debt expiring in the period through to FY20. The group has access to a range of local bank funders and its DMTN programme, with fairly moderate concentration evident in the current the debt structure. AECI also holds Euro and Dollar based facilities amounting to R2bn at FY18, with risk mitigated by natural hedges as dividend flows are matched from foreign subsidiaries. GCR does not see significant additional risks in the capital structure, with the entity operating without asset encumbrances.

## Liquidity

### ❖ Strong liquidity underpinned by low near-term debt obligations

**Table 2: Debt maturity profile**

Debt balance	FY19	FY20	FY21	FY22	FY23
Term	283	-	1,300	-	500
DMTN	-	-	360	500	820
USD term	-	173	201	216	297
EUR term	-	-	-	-	1,118
<b>Total</b>	<b>283</b>	<b>173</b>	<b>1,861</b>	<b>716</b>	<b>2,725</b>

GCR views AECI's liquidity profile as strong using a simple 'uses versus sources' assessment. At FY18 AECI reported R1.6bn of unrestricted cash on balance sheet, whilst positive discretionary cash flows are expected to ensue from additional earnings from new production capacity. Liquidity sources strongly cover AECI's liquidity needs by 2x through to FY20, including R456m debt due by FY20, capital expenditures averaging c.R700m annually, as well as dividend payments and working capital needs. However, GCR's view is somewhat tempered by the large debt maturity in FY21 and the risk of cash outflows related to additional large acquisitions as per the growth strategy. GCR also views AECI as having well-established relationships with banks, as well as proven access to debt capital markets, supporting good access to capital.

## COMPARATIVE PROFILE

---

The comparative profile is a neutral component for the ratings.

---

### Peer analysis

No peer adjustments have been factored into the ratings.

### Group support

Group support is not applicable to the ratings.

## RATING ADJUSTMENT FACTORS

---

### Structural adjustments

No Rating Adjustment Factors have been factored into the ratings.

### Instrument ratings

No adjustments for instrument ratings are applicable.

## RISK SCORE SUMMARY

---

<b>Risk score</b>	<b>15.00</b>
<b>Operating environment</b>	<b>11.00</b>
Country risk score	7.00
Sector risk score	4.00
<b>Business profile</b>	<b>2.00</b>
Competitive position	2.00
Management and governance	0.00
<b>Financial profile</b>	<b>2.00</b>
Earnings performance	0.00
Leverage and capital structure	1.00
Liquidity	1.00
<b>Comparative profile</b>	<b>0.00</b>
Group support	0.00
Peer comparison	0.00

## Glossary

Agreement	A negotiated and usually legally enforceable understanding between two or more legally competent parties.
Asset	A resource with economic value that a company owns or controls with the expectation that it will provide future benefit.
Balance Sheet	Also known as Statement of Financial Position. A statement of a company's assets and liabilities provided for the benefit of shareholders and regulators. It gives a snapshot at a specific point in time of the assets the company holds and how they have been financed.
Capital Expenditure	Expenditure on long-term assets such as plant, equipment or land, which will form the productive assets of a company.
Capital	The sum of money that is invested to generate proceeds.
Cash Flow	The inflow and outflow of cash and cash equivalents. Such flows arise from operating, investing and financing activities.
Cash	Funds that can be readily spent or used to meet current obligations.
Commodity	Raw materials used in manufacturing industries or in the production of foodstuffs. These include metals, oil, grains and cereals, soft commodities such as sugar, cocoa, coffee and tea, as well as vegetable oils.
Concentrations	A high degree of positive correlation between factors or excessive exposure to a single factor that share similar demographics or financial instrument or specific sector or specific industry or specific markets.
Contract	An agreement by which an insurer agrees, for a consideration, to provide benefits, reimburse losses or provide services for an insured. A 'policy' is the written statement of the terms of the contract.
Country Risk	The range of risks emerging from the political, legal, economic and social conditions of a country that have adverse consequences affecting investors and creditors with exposure to the country, and may also include negative effects on financial institutions and borrowers in the country.
Covenant	A provision that is indicative of performance. Covenants are either positive or negative. Positive covenants are activities that the borrower commits to, typically in its normal course of business. Negative covenants are certain limits and restrictions on the borrowers' activities.
Credit	A contractual agreement in which a borrower receives something of value now, and agrees to repay the lender at some date in the future, generally with interest. The term also refers to the borrowing capacity of an individual or company
Debt	An obligation to repay a sum of money. More specifically, it is funds passed from a creditor to a debtor in exchange for interest and a commitment to repay the principal in full on a specified date or over a specified period.
Diversification	Spreading risk by constructing a portfolio that contains different exposures whose returns are relatively uncorrelated. The term also refers to companies which move into markets or products that bear little relation to ones they already operate in.
Dividend	The portion of a company's after-tax earnings that is distributed to shareholders.
Environment	The surroundings or conditions in which an entity operates (Economic, Financial, Natural).
Exposure	Exposure is the amount of risk the holder of an asset or security is faced with as a consequence of holding the security or asset. For a company, its exposure may relate to a particular product class or customer grouping. Exposure may also arise from an overreliance on one source of funding. In insurance, it refers to an individual or company's vulnerability to various risks
Hedge	A form of risk management aimed at mitigating financial loss or other adverse circumstances. May include taking an offsetting position in addition to an existing position. The correlation between the existing and offsetting position is negative.
Interest Cover	Interest cover is a measure of a company's interest payments relative to its profits. It is calculated by dividing a company's operating profit by its interest payments for a given period.
Interest	Scheduled payments made to a creditor in return for the use of borrowed money. The size of the payments will be determined by the interest rate, the amount borrowed or principal and the duration of the loan.
Issuer	The party indebted or the person making repayments for its borrowings.
Lease	Conveyance of land, buildings, equipment or other assets from one person (lessor) to another (lessee) for a specific period of time for monetary or other consideration, usually in the form of rent.
Leverage	With regard to corporate analysis, leverage (or gearing) refers to the extent to which a company is funded by debt.
Liquidity	The speed at which assets can be converted to cash. It can also refer to the ability of a company to service its debt obligations due to the presence of liquid assets such as cash and its equivalents. Market liquidity refers to the ease with which a security can be bought or sold quickly and in large volumes without substantially affecting the market price.
Loan	A sum of money borrowed by a debtor that is expected to be paid back with interest to the creditor. A debt instrument where immovable property is the collateral for the loan. A mortgage gives the lender a right to take possession of the property if the borrower fails to repay the loan. Registration is a prerequisite for the existence of any mortgage loan. A

	mortgage can be registered over either a corporeal or incorporeal property, even if it does not belong to the mortgagee. Also called a Mortgage bond.
Long Term Rating	See GCR Rating Scales, Symbols and Definitions.
Margin	A term whose meaning depends on the context. In the widest sense, it means the difference between two values.
Market	An assessment of the property value, with the value being compared to similar properties in the area.
Maturity	The length of time between the issue of a bond or other security and the date on which it becomes payable in full.
Obligation	The title given to the legal relationship that exists between parties to an agreement when they acquire personal rights against each other for entitlement to perform.
Operating Cash Flow	A company's net cash position over a given period, i.e. money received from customers minus payments to suppliers and staff, administration expenses, interest payments and taxes.
Operating Lease	A lease where the risk and reward is not transferred.
Option	An option gives the buyer or holder the right, but not the obligation, to buy or sell an underlying financial asset at a pre-determined price.
Policy	The legal document issued by the company to the policyholder, which outlines the conditions and terms of the insurance.
Portfolio	A collection of investments held by an individual investor or financial institution. They may include stocks, bonds, futures contracts, options, real estate investments or any item that the holder believes will retain its value.
Private	An issuance of securities without market participation, however, with a select few investors. Placed on a private basis and not in the open market.
Put Option	An option giving the holder the right, but not the obligation to sell the underlying instrument at an agreed price or strike price within a specified time. The seller or writer has the obligation to buy if the holder exercises the option to sell.
Refinance	The issue of new debt to replace maturing debt. New debt may be provided by existing or new lenders, with a new set of terms in place.
Risk	The chance of future uncertainty (i.e. deviation from expected earnings or an expected outcome) that will have an impact on objectives.
Senior	A security that has a higher repayment priority than junior securities.
Short Term	Current; ordinarily less than one year.
Short Term Rating	See GCR Rating Scales, Symbols and Definitions.
Spread	The interest rate that is paid in addition to the reference rate for debt securities.
Tenor	The time from the value date until the expiry date of an instrument, typically a loan or option.
Turnover	The total value of goods or services sold by a company in a given period. Also known as revenue or sales. Turnover can also refer to the total volume of trades in a market during a given period.
Upgrade	The rating has been raised on its specific scale.
Working Capital	Working capital usually refers to the resources that a company uses to finance day-to-day operations. Changes in working capital are assessed to explain movements in debt and cash balances.

## SALIENT POINTS OF ACCORDED RATINGS

GCR affirms that a.) no part of the rating process was influenced by any other business activities of the credit rating agency; b.) the ratings were based solely on the merits of the rated entity, security or financial instrument being rated; c.) such ratings were an independent evaluation of the risks and merits of the rated entity, security or financial instrument; and d.) the validity of the rating is for a maximum of 12 months, or earlier as indicated by the applicable credit rating document.

The credit ratings have been disclosed to AECI Limited. The ratings above were solicited by, or on behalf of, the rated entity, and therefore, GCR has been compensated for the provision of the rating.

AECI Limited participated in the rating process via face-to-face management meetings, teleconferences and other written correspondence. Furthermore, the quality of information received was considered adequate and has been independently verified where possible. The information received from AECI Limited and other reliable third parties to accord the credit rating included:

- The audited financial results for Dec 2018
- Four years of comparative audited numbers
- Industry presentation for FY18
- Detailed facility breakdown for FY18
- Budgeted cash flows for 2019/20

ALL GCR CREDIT RATINGS ARE SUBJECT TO CERTAIN LIMITATIONS, TERMS OF USE OF SUCH RATINGS AND DISCLAIMERS. PLEASE READ THESE LIMITATIONS, TERMS OF USE AND DISCLAIMERS BY FOLLOWING THIS LINK: [HTTP://GCRRATINGS.COM](http://GCRRATINGS.COM). IN ADDITION, RATING SCALES AND DEFINITIONS ARE AVAILABLE ON GCR'S PUBLIC WEB SITE AT [WWW.GCRRATINGS.COM/RATING\\_INFORMATION](http://WWW.GCRRATINGS.COM/RATING_INFORMATION). PUBLISHED RATINGS, CRITERIA, AND METHODOLOGIES ARE AVAILABLE FROM THIS SITE AT ALL TIMES. GCR'S CODE OF CONDUCT, CONFIDENTIALITY, CONFLICTS OF INTEREST, COMPLIANCE, AND OTHER RELEVANT POLICIES AND PROCEDURES ARE ALSO AVAILABLE FROM THIS SITE.

CREDIT RATINGS ISSUED AND RESEARCH PUBLICATIONS PUBLISHED BY GCR, ARE GCR'S OPINIONS, AS AT THE DATE OF ISSUE OR PUBLICATION THEREOF, OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. GCR DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL AND/OR FINANCIAL OBLIGATIONS AS THEY BECOME DUE. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: FRAUD, MARKET LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND GCR'S OPINIONS INCLUDED IN GCR'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. CREDIT RATINGS AND GCR'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND GCR'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL OR HOLD PARTICULAR SECURITIES. NEITHER GCR'S CREDIT RATINGS, NOR ITS PUBLICATIONS, COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. GCR ISSUES ITS CREDIT RATINGS AND PUBLISHES GCR'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING OR SALE.

Copyright © 2019 GCR INFORMATION PUBLISHED BY GCR MAY NOT BE COPIED OR OTHERWISE REPRODUCED OR DISCLOSED, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT GCR'S PRIOR WRITTEN CONSENT. Credit ratings are solicited by, or on behalf of, the issuer of the instrument in respect of which the rating is issued, and GCR is compensated for the provision of these ratings. Information sources used to prepare the ratings are set out in each credit rating report and/or rating notification and include the following: parties involved in the ratings and public information. All information used to prepare the ratings is obtained by GCR from sources reasonably believed by it to be accurate and reliable. Although GCR will at all times use its best efforts and practices to ensure that the information it relies on is accurate at the time, GCR does not provide any warranty in respect of, nor is it otherwise responsible for, the accurateness of such information. GCR adopts all reasonable measures to ensure that the information it uses in assigning a credit rating is of sufficient quality and that such information is obtained from sources that GCR, acting reasonably, considers to be reliable, including, when appropriate, independent third-party sources. However, GCR cannot in every instance independently verify or validate information received in the rating process. Under no circumstances shall GCR have any liability to any person or entity for (a) any loss or damage suffered by such person or entity caused by, resulting from, or relating to, any error made by GCR, whether negligently (including gross negligence) or otherwise, or other circumstance or contingency outside the control of GCR or any of its directors, officers, employees or agents in connection with the procurement, collection, compilation, analysis, interpretation, communication, publication or delivery of any such information, or (b) any direct, indirect, special, consequential, compensatory or incidental damages whatsoever (including without limitation, lost profits) suffered by such person or entity, as a result of the use of or inability to use any such information. The ratings, financial reporting analysis, projections, and other observations, if any, constituting part of the information contained in each credit rating report and/or rating notification are, and must be construed solely as, statements of opinion and not statements of fact or recommendations to purchase, sell or hold any securities. Each user of the information contained in each credit rating report and/or rating notification must make its own study and evaluation of each security it may consider purchasing, holding or selling. NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY SUCH RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY GCR IN ANY FORM OR MANNER WHATSOEVER.