

Rating Action: Moody's downgrades 6 South African sub-sovereign issuers; ratings placed on review for further downgrade

16 Jul 2021

Johannesburg, July 16, 2021 -- Moody's Investors Service has today taken rating actions on 5 South African Regional and Local Governments (RLGs) and 1 Government-Related Issuer (GRI).

The rating downgrades reflect rising liquidity pressure as a result of material shortfalls in revenue collection, that Moody's expects to last, in the context of very weak growth. South African Regional and Local Governments are likely to draw down on cash buffers, with different starting positions, eroding their capacity to absorb future shocks.

In this environment, the reviews for further downgrade reflect high uncertainty about the RLGs capacity to secure financing well in advance of debt and other payments being due.

Moody's has taken the following rating actions:

- Downgraded the long-term global scale and national scale issuer and debt ratings (LT GSR and NSR) to Ba3/Aa3.za (from Ba2/Aaa.za) for City of Cape Town and placed the ratings on review for downgrade. At the same time placed the short-term (ST) NSR issuer ratings of P-1.za on review for downgrade whilst the ST GSR issuer ratings of NP was affirmed.
- Downgraded the LT GSR and NSR issuer rating to Ba3/Aa3.za (from Ba2/Aaa.za) for Nelson Mandela Metropolitan, Municipality and placed the ratings on review for further downgrade.
- Downgraded the LT GSR and NSR issuer and debt ratings to Ba3/A1.za (from Ba2/Aa1.za) for City of Johannesburg and placed the ratings on review for further downgrade. At the same time placed the ST NSR issuer ratings of P-1.za on review for downgrade whilst the ST GSR issuer ratings of NP was affirmed.
- Downgraded the LT GSR and NSR issuer and debt ratings to B2/Baa3.za (from B1/A3.za) for the City of Ekurhuleni and placed the ratings on review for further downgrade. At the same time downgraded the ST NSR issuer ratings to P-3.za (from P-2.za) and placed it on review for further downgrade, whilst the ST GSR issuer ratings of NP was affirmed.
- Downgraded the LT GSR and NSR issuer ratings to B1/Baa1.za (from Ba3/A1.za) for the City of uMhlathuze and placed the ratings on review for further downgrade.
- Downgraded the LT GSR and NSR issuer ratings to B2/Baa3.za (from B1/A3.za) for Ekurhuleni Water Care Company (ERWAT) and placed the ratings on review for further downgrade.
- Downgraded by one notch the Baseline Credit Assessment (BCA) of City of Cape Town, Nelson Mandela Metropolitan Municipality, City of Johannesburg, City of Ekurhuleni and City of uMhlathuze.

A full list of affected ratings is provided towards the end of this press release.

RATINGS RATIONALE

RATIONALE FOR THE DOWNGRADE

The decision to downgrade the RLG ratings by one notch reflects the rising liquidity pressures as a result of material shortfalls in revenue collection, that Moody's expects to last, in the context of very weak growth. South African Regional and Local Governments are likely to draw down on cash buffers, with different starting positions, eroding their capacity to absorb future shocks.

On average rated municipalities generate more than 80% of their operating revenues from fees for services provision. Based on currently available information, very weak growth is likely to result in a more marked decline in their collection rate than Moody's previously expected. Some municipalities having reported declines of up to 10% in revenue collection during 2020, shortfalls which are likely to be widespread and persistent. As

a result, Moody's expects a material deterioration of gross operating balances and cash balances in FY2021 and FY2022. Given the structurally very weak growth in the country and their limited budget flexibility the metros will continue to struggle to balance operations in the coming years, and deficits levels will likely be controlled through potentially large cuts in capital expenditure, which given the metros' already significant infrastructure backlog will be credit negative.

Though some of these entities have liquidity reserves (sinking funds and investments), that provide some buffer in the short-term, further drawdowns from these reserves to make up for the revenue shortfalls will reduce the RLGs' capacity to face future shocks and meet future debt maturities.

The continued strain in the operating environment, as South Africa continues to battle the coronavirus through strict lock-down regulations, further exacerbates the pressures on the municipalities. In 2020, consumption spending was highly affected, as households also faced cashflow pressures. This, in turn, caused payments of rates and services, to municipalities, to be a low priority for households. With the additional lock-down measures that have been applied, we expect to see a further decline in consumption spending, and therefore more pressure in municipal collection rates; and thus, operating and cash deficits.

Moody's expects the Ba3 rated RLGs to demonstrate better risk controls, financial management and investment and debt management; which are expected to result in better resilience in the current environment, than the RLGs rated at B1 and B2.

RATIONALE FOR PLACING THE RATINGS ON REVIEW FOR DOWNGRADE

Moody's has placed the ratings under review for further downgrade to reflect the significant downside risks related to uncertainty about the RLGs' capacity to secure financing over the short and medium term, as revenues fall short of prior expectations and cash buffers diminish. The deterioration in the operating and liquidity metrics of the municipalities will not only have a bearing on the municipalities' abilities to meet their obligations, but may also have an impact on the financial sector's appetite for municipal debt. Moody's expects financial institutions and other public sector lenders to further tighten their credit control process which may make it difficult for municipalities to access funding.

The review period will allow Moody's to assess the prospects for each city's operating balance, liquidity positions and financing needs as well as their ability to secure additional financing over the near to medium term. We will also assess the metros' likely policy response and contingency planning in case of constrained access to funding.

RATIONALE FOR DOWNGRADING ERWAT RATING AND PLACE IT ON REVIEW FOR DOWNGRADE

The rationale for downgrading ERWAT's rating and placing it on review for further downgrade reflects its close operational and financial linkages with its support provider, the City of Ekurhuleni (B2 RUR). Its rating is derived from the application of Moody's approach to Government-Related Issuers (GRIs) rated solely on support. The rating action taken on ERWAT is also in line with that of its support provider, as it is 97% owned by the City of Ekurhuleni and its debt is largely guaranteed by its support provider which also approves its operating and capital budgets.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE CONSIDERATIONS

RLGs

Environmental considerations are material to South African RLGs' credit profiles. Water shortages are one of the most material environmental risks to the sector. South Africa is considered a water scarce country and drought is the most frequent environmental risk which has a direct impact on the sector's revenues. Revenues from water purchases account for 10% of revenues on average across the rated sector. Water supply risks are managed through partnerships between the central government Department for Water and Sanitation and respective municipalities, and some of the financial burden for implementing and maintaining diverse water sources will be borne by municipalities. The metros have increased their focus on water related infrastructure investment in their 2020-23 capital budgets. Northern Cape and Eastern Cape provinces have been declared disaster areas due to water shortages and they require funding from national government to alleviate the situation.

Social considerations are material to South African RLGs' credit profiles. South African RLGs face growing demographic-related spending pressures which are exacerbated by infrastructure backlogs and high levels of urbanization and population growth. We also view the coronavirus outbreak as a social risk under our ESG

framework, given the impact on public health and safety. For RLGs, the coronavirus-related sharp economic contraction and increase in unemployment will further constrain their revenue collection and liquidity. National government transfers and municipal borrowing capacity are often not sufficient to meet ongoing requirements for the provision for basic services. As a result, it has become increasingly challenging for the municipalities to meet the required capital infrastructure spending. The country also faces a high unemployment rate, which directly impacts the ability of residents to pay for services and increases the number of households that are entirely dependent on government transfers for basic services. In addition, South Africa has one of the highest inequality rates in the world and this also filters through to the local governments in the country, creating risks of ongoing service delivery protests as most poor communities are largely dependent on the national government for the provision of basic services.

Governance considerations are material to South African RLGs' credit profiles. The municipalities' governance and management practices are key credit differentiating factors. In South Africa, municipal financial operations are guided by various legislations, such as the Municipal Finance Management Act (MFMA). The national government, through the Treasury, has an oversight role. Although data transparency and quality are generally good, some financial statements, along with medium-term budgets are not published on the websites of the municipalities and National Treasury in a timely manner, signalling a gradual weakness in the oversight role played by the supporting government.

GRI

Environmental considerations are material to ERWAT's credit profile. ERWAT is exposed to similar water shortages affecting its support provider the City of Ekurhuleni. The vast majority of ERWAT's operating revenue is derived from the City of Ekurhuleni, which could be affected in case of water shortages due to drought.

Social considerations are not material to ERWAT. It is exposed to some social risks, mainly related to water services. Nevertheless, these risks have limited credit impact given the support coming from the City of Ekurhuleni.

Governance risks are material to ERWAT's credit profiles. The governance framework is intrinsically intertwined with their supporting governments, which is responsible to exert strong oversight and ultimately take strategic decisions.

FACTORS THAT COULD LEAD TO AN UPGRADE OR DOWNGRADE OF THE RATINGS

A rating upgrade is unlikely, considering the ratings being placed under review for further downgrade, however Moody's could consider confirming the individual ratings at the current level, if they are likely to face only limited revenue shortfall and retain their current cash balances, and if they are able to rely on secure and comprehensive funding.

Moody's would consider downgrading the ratings if we see increasing risks that financing may not be forthcoming; and liquidity buffers be depleted further to levels not consistent with the respective RLG ratings.

The principal methodology used in rating Cape Town, City of, Ekurhuleni, City of, Johannesburg, City of, Nelson Mandela, Metropolitan Municipality, uMhlathuze, City of was Regional and Local Governments published in January 2018 and available at https://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_1091595. The principal methodology used in rating Ekurhuleni Water Care Company was Government-Related Issuers Methodology published in February 2020 and available at https://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_1186207. Alternatively, please see the Rating Methodologies page on www.moodys.com for a copy of these methodologies.

LIST OF AFFECTED RATINGS

Downgrades:

..Issuer: Cape Town, City of

....LT Issuer Rating , Downgraded to Ba3 from Ba2; Placed on Review for further Downgrade

....NSR LT Issuer Rating, Downgraded to Aa3.za from Aaa.za; Placed on Review for further Downgrade

....NSR Senior Unsecured Medium-Term Note Program, Downgraded to Aa3.za from Aaa.za; Placed on

Review for further Downgrade

....Senior Unsecured Medium-Term Note Program, Downgraded to (P)Ba3 from (P)Ba2; Placed on Review for further Downgrade

....Senior Unsecured Regular Bond/Debenture, Downgraded to Ba3 from Ba2; Placed on Review for further Downgrade

....NSR Senior Unsecured Regular Bond/Debenture, Downgraded to Aa3.za from Aaa.za; Placed on Review for further Downgrade

..Issuer: Ekurhuleni Water Care Company

....LT Issuer Rating, Downgraded to B2 from B1; Placed on Review for further Downgrade

....NSR LT Issuer Rating, Downgraded to Baa3.za from A3.za; Placed on Review for further Downgrade

..Issuer: Ekurhuleni, City of

....LT Issuer Rating, Downgraded to B2 from B1; Placed on Review for further Downgrade

....NSR ST Issuer Rating, Downgraded to P-3.za from P-2.za; Placed on Review for further Downgrade

....NSR LT Issuer Rating, Downgraded to Baa3.za from A3.za; Placed on Review for further Downgrade

....Senior Unsecured Medium-Term Note Program, Downgraded to (P)B2 from (P)B1; Placed on Review for further Downgrade

....NSR Senior Unsecured Medium-Term Note Program, Downgraded to Baa3.za from A3.za; Placed on Review for further Downgrade

....Senior Unsecured Regular Bond/Debenture, Downgraded to B2 from B1; Placed on Review for further Downgrade

....NSR Senior Unsecured Regular Bond/Debenture, Downgraded to Baa3.za from A3.za; Placed on Review for further Downgrade

..Issuer: Johannesburg, City of

....LT Issuer Rating, Downgraded to Ba3 from Ba2; Placed on Review for further Downgrade

....NSR LT Issuer Rating, Downgraded to A1.za from Aa1.za; Placed on Review for further Downgrade

....NSR Senior Unsecured Medium-Term Note Program, Downgraded to A1.za from Aa1.za; Placed on Review for further Downgrade

....Senior Unsecured Medium-Term Note Program, Downgraded to (P)Ba3 from (P)Ba2; Placed on Review for further Downgrade

....Senior Unsecured Regular Bond/Debenture, Downgraded to Ba3 from Ba2; Placed on Review for further Downgrade

....NSR Senior Unsecured Regular Bond/Debenture, Downgraded to A1.za from Aa1.za; Placed on Review for further Downgrade

..Issuer: Nelson Mandela, Metropolitan Municipality

....LT Issuer Rating, Downgraded to Ba3 from Ba2; Placed on Review for further Downgrade

....NSR LT Issuer Rating, Downgraded to Aa3.za from Aaa.za; Placed on Review for further Downgrade

..Issuer: uMhlathuze, City of

....LT Issuer Rating, Downgraded to B1 from Ba3; Placed on Review for further Downgrade

....NSR LT Issuer Rating Downgraded to Baa1.za from A1.za; Placed on Review for further Downgrade

On Review for Downgrade:

..Issuer: Cape Town, City of

....NSR ST Issuer Rating, Placed on Review for Downgrade, currently P-1.za

..Issuer: Johannesburg, City of

....NSR ST Issuer Rating, Placed on Review for Downgrade, currently P-1.za

Affirmations:

..Issuer: Cape Town, City of

....ST Issuer Rating, Affirmed NP

..Issuer: Ekurhuleni, City of

....ST Issuer Rating , Affirmed NP

..Issuer: Johannesburg, City of

....ST Issuer Rating, Affirmed NP

Outlook Actions:

..Issuer: Cape Town, City of

....Outlook, Changed To Rating on Review From Negative

..Issuer: Ekurhuleni Water Care Company

....Outlook, Changed To Rating on Review From Negative

..Issuer: Ekurhuleni, City of

....Outlook, Changed To Rating on Review From Negative

..Issuer: Johannesburg, City of

....Outlook, Changed To Rating on Review From Negative

..Issuer: Nelson Mandela, Metropolitan Municipality

....Outlook, Changed To Rating on Review From Negative

..Issuer: uMhlathuze, City of

....Outlook, Changed To Rating on Review From Negative

Moody's National Scale Credit Ratings (NSRs) are intended as relative measures of creditworthiness among debt issues and issuers within a country, enabling market participants to better differentiate relative risks. NSRs differ from Moody's global scale credit ratings in that they are not globally comparable with the full universe of Moody's rated entities, but only with NSRs for other rated debt issues and issuers within the same country. NSRs are designated by a ".nn" country modifier signifying the relevant country, as in ".za" for South Africa. For further information on Moody's approach to national scale credit ratings, please refer to Moody's Credit rating Methodology published in May 2016 entitled "Mapping National Scale Ratings from Global Scale Ratings". While NSRs have no inherent absolute meaning in terms of default risk or expected loss, a historical probability of default consistent with a given NSR can be inferred from the GSR to which it maps back at that particular point in time. For information on the historical default rates associated with different global scale rating categories over different investment horizons, please see https://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_1280297 .

Glossary of Terms and Acronyms

Affirmation: An Affirmation is a public statement that the current Credit Rating assigned to an issuer or debt obligation, which is not currently under review, continues to be appropriately positioned.

Capital Expenditures or Capex: This includes gross expenditures for property, plant and equipment and intangible assets.

Credit Rating: A Credit Rating is an opinion from Moody's Investors Service (MIS) regarding the creditworthiness of an entity, a debt or financial obligation, debt security, preferred share or other financial instrument, or of an issuer of such a debt or financial obligation, debt security, preferred share or other financial instrument, issued using an established and defined ranking system of rating categories.

Debt: Long term debt (including liability for capital leases) plus short term debt plus current portion of long term debt. May also be adjusted to include other long term obligations, such as leases and pensions.

Global Scale Long Term Credit Rating: Long-term ratings are assigned to issuers or obligations with an original maturity of one year or more and reflect both on the likelihood of a default on contractually promised payments and the expected financial loss suffered in the event of default.

Global Scale Ratings: Ratings assigned on Moody's global long-term and short-term rating scales are forward-looking opinions of the relative credit risks of financial obligations issued by non-financial corporates, financial institutions, structured finance vehicles, project finance vehicles, and public sector entities.

Global Scale Short Term Credit Rating: Short-term ratings are assigned to obligations with an original maturity of thirteen months or less and reflect the likelihood of a default on contractually promised payments.

GRI (Government-Related Issuer): GRI is an entity with full or partial government ownership or control, a special charter, or a public policy mandate from the national, regional or local government. Moody's generally uses 20% as the minimum government ownership level before considering an issuer to be a GRI.

Issuer Rating: Issuer Ratings are opinions of the ability of entities to honor senior unsecured financial counterparty obligations and contracts.

National Scale Long Term Rating: Moody's long-term National Scale Ratings (NSRs) are opinions of the relative creditworthiness of issuers and financial obligations within a particular country. NSRs are not designed to be compared among countries; rather, they address relative credit risk within a given country.

National Scale Short Term Rating: Moody's short-term NSRs are opinions of the ability of issuers in a given country, relative to other domestic issuers, to repay debt obligations that have an original maturity not exceeding one year. Short term NSRs in one country should not be compared with short-term NSRs in another country, or with Moody's global ratings.

Operating Revenue: For regional and local governments, this represents recurrent income such as taxes and central government transfers, used for government's core operations. For corporations, this represents income received from the sale of goods and services.

Outlook: An Outlook is an opinion regarding the likely direction of an issuer's rating over the medium term.

Rating Outlook: A Moody's rating outlook is an opinion regarding the likely rating direction over the medium term. Rating outlooks fall into four categories: Positive (POS), Negative (NEG), Stable (STA), and Developing (DEV). Outlooks may be assigned at the issuer level or at the rating level.

Rating Review: A rating review indicates that a rating is under consideration for a change in the near term. A rating can be placed on review for upgrade (UPG), downgrade (DNG), or more rarely with direction uncertain (UNC). A review may end with a rating being upgraded, downgraded, or confirmed without a change to the rating. Ratings on review are said to be on Moody's "Watchlist" or "On Watch".

For further information on these definitions or on Moody's ratings symbols, please consult the Rating Symbols and Definitions document on www.moody.com

REGULATORY DISCLOSURES

The rating for 820595946, NSR LT Issuer Rating, ISSUER RATING, ZAR of Cape Town, City of was initially assigned on 18 Jan 2008 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 820595946, NSR ST Issuer Rating, ISSUER RATING, ZAR of Cape Town, City of was initially assigned on 16 Jul 2010 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000054982, NSR Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Cape Town, City of was initially assigned on 15 Jan 2009 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 820960280, NSR LT Senior Unsecured MTN, SOUTH AFRICAN MTN PROGRAM, ZAR of Cape Town, City of was initially assigned on 21 May 2008 and the last Credit Rating Action was taken 25 Nov 2020.

The rating for ZAG000068719, NSR Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Cape Town, City of was initially assigned on 08 Apr 2009 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000075995, NSR Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Cape Town, City of was initially assigned on 12 Mar 2010 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 822471425, NSR LT Issuer Rating, ISSUER RATING, ZAR of Ekurhuleni Water Care Company was initially assigned on 11 May 2011 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 820595939, NSR LT Issuer Rating, ISSUER RATING, ZAR of Ekurhuleni, City of was initially assigned on 18 Jan 2008 and the last Credit Rating Action was taken 25 Nov 2020.

The rating for 820595939, NSR ST Issuer Rating, ISSUER RATING, ZAR of Ekurhuleni, City of was initially assigned on 16 Jul 2010 and the last Credit Rating Action was taken 25 Nov 2020.

The rating for ZAG000127358, NSR Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Ekurhuleni, City of was initially assigned on 17 Jun 2015 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000105669, NSR Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Ekurhuleni, City of was initially assigned on 13 May 2013 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000145384, NSR Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Ekurhuleni, City of was initially assigned on 14 Jul 2017 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000145194, NSR Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Ekurhuleni, City of was initially assigned on 04 Jul 2017 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000094848, NSR Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Ekurhuleni, City of was initially assigned on 24 Apr 2012 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000115148, NSR Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Ekurhuleni, City of was initially assigned on 11 Apr 2014 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 822158922, NSR LT Senior Unsecured MTN, SOUTH AFRICAN MTN PROGRAM, ZAR of Ekurhuleni, City of was initially assigned on 16 Jul 2010 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 820595948, NSR LT Issuer Rating, ISSUER RATING, ZAR of Johannesburg, City of was initially assigned on 14 May 2008 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 820595948, NSR ST Issuer Rating, ISSUER RATING, ZAR of Johannesburg, City of was initially assigned on 23 Mar 2012 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000137571, NSR Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Johannesburg, City of was initially assigned on 13 Jun 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000054339, NSR Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Johannesburg, City of was initially assigned on 27 May 2008 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 825092055, NSR LT Senior Unsecured MTN, SOUTH AFRICAN MTN PROGRAM, ZAR of Johannesburg, City of was initially assigned on 13 June 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 820965396, NSR LT Senior Unsecured MTN, SOUTH AFRICAN MTN PROGRAM, ZAR of Johannesburg, City of was initially assigned on 27 May 2008 and the last Credit Rating Action was taken on 25 Nov 2020.

Nov 2020.

The rating for 820596002, NSR LT Issuer Rating, ISSUER RATING, ZAR of Nelson Mandela, Metropolitan Municipality, was initially assigned on 18 Jan 2008 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 825431399, NSR LT Issuer Rating, ISSUER RATING, ZAR of uMhlathuze, City of, was initially assigned on 18 Jul 2017 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 820595946, LT Issuer Rating, ISSUER RATING, ZAR of Cape Town, City of was initially assigned on 11 May 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 820595946, ST Issuer Rating, ISSUER RATING, ZAR of Cape Town, City of was initially assigned on 11 May 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000054982, Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Cape Town, City of was initially assigned on 11 May 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 820960280, LT Senior Unsecured MTN, SOUTH AFRICAN MTN PROGRAM, ZAR of Cape Town, City of was initially assigned on 11 May 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000068719, Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Cape Town, City of was initially assigned on 11 May 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000075995, Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Cape Town, City of was initially assigned on 11 May 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 822471425, LT Issuer Rating, ISSUER RATING, ZAR of Ekurhuleni Water Care Company was initially assigned on 11 May 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 820595939, LT Issuer Rating, ISSUER RATING, ZAR of Ekurhuleni, City of was initially assigned on 11 May 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 820595939, ST Issuer Rating, ISSUER RATING, ZAR of Ekurhuleni, City of was initially assigned on 11 May 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000127358, Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Ekurhuleni, City of was initially assigned on 11 May 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000094848, Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Ekurhuleni, City of was initially assigned on 11 May 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000105669, Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Ekurhuleni, City of was initially assigned on 11 May 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000145384, Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Ekurhuleni, City of was initially assigned on 14 Jul 2017 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000145194, Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Ekurhuleni, City of was initially assigned on 04 Jul 2017 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000115148, Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Ekurhuleni, City of was initially assigned on 11 May 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 822158922, LT Senior Unsecured MTN, SOUTH AFRICAN MTN PROGRAM, ZAR of Ekurhuleni, City of was initially assigned on 11 May 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 820595948, LT Issuer Rating, ISSUER RATING, ZAR of Johannesburg, City of was initially assigned on 11 May 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 820595948, ST Issuer Rating, ISSUER RATING, ZAR of Johannesburg, City of was initially assigned on 11 May 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000137571, Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Johannesburg, City of was initially assigned on 13 Jun 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for ZAG000054339, Senior Unsecured, SOUTH AFRICAN MTN, ZAR of Johannesburg, City of was initially assigned on 11 May 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 820965396, LT Senior Unsecured MTN, SOUTH AFRICAN MTN PROGRAM, ZAR of Johannesburg, City of was initially assigned on 11 May 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 825092055, LT Senior Unsecured MTN, SOUTH AFRICAN MTN PROGRAM, ZAR of Johannesburg, City of was initially assigned on 13 Jun 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 820596002, LT Issuer Rating, ISSUER RATING, ZAR of Nelson Mandela, Metropolitan Municipality, was initially assigned on 11 May 2016 and the last Credit Rating Action was taken on 25 Nov 2020.

The rating for 825431399, LT Issuer Rating, ISSUER RATING ZAR of uMhlathuze, City of, was initially assigned on 18 Jul 2017 and the last Credit Rating Action was taken on 25 Nov 2020.

Only credit rating actions issued by Moody's Investors Service South Africa (Pty) Ltd are considered for the purpose of this disclosure.

Please see the ratings tab on the issuer page on www.moodys.com for additional rating history details. The date on which some ratings were first released goes back to a time before Moody's ratings were fully digitized and accurate data may not be available. Consequently, Moody's provides a date that it believes is the most reliable and accurate based on the information that is available to it.

For further specification of Moody's key rating assumptions and sensitivity analysis, see the sections Methodology Assumptions and Sensitivity to Assumptions in the disclosure form. Moody's Rating Symbols and Definitions can be found at: https://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_79004.

For ratings issued on a program, series, category/class of debt or security this announcement provides certain regulatory disclosures in relation to each rating of a subsequently issued bond or note of the same series, category/class of debt, security or pursuant to a program for which the ratings are derived exclusively from existing ratings in accordance with Moody's rating practices. For ratings issued on a support provider, this announcement provides certain regulatory disclosures in relation to the credit rating action on the support provider and in relation to each particular credit rating action for securities that derive their credit ratings from the support provider's credit rating. For provisional ratings, this announcement provides certain regulatory disclosures in relation to the provisional rating assigned, and in relation to a definitive rating that may be assigned subsequent to the final issuance of the debt, in each case where the transaction structure and terms have not changed prior to the assignment of the definitive rating in a manner that would have affected the rating. For further information please see the ratings tab on the issuer/entity page for the respective issuer on www.moodys.com.

For any affected securities or rated entities receiving direct credit support from the primary entity(ies) of this credit rating action, and whose ratings may change as a result of this credit rating action, the associated regulatory disclosures will be those of the guarantor entity. Exceptions to this approach exist for the following disclosures, if applicable to jurisdiction: Ancillary Services, Disclosure to rated entity, Disclosure from rated entity.

Moody's considers a rated entity or its agent(s) to be participating when it maintains an overall relationship with Moody's. On this basis, these rated entities or their agent(s) are considered to be participating entities. The rated entities or their agent(s) generally provide Moody's with information for the purposes of their ratings process.

The main assumptions underlying the methodology used to determine the credit ratings for Cape Town, City of, Ekurhuleni, City of, Johannesburg, City of, Nelson Mandela, Metropolitan Municipality, and uMhlathuze, City of are:

1) Expected future economic trends and operating environment of the relevant sector are assumed to be

predictive for the likelihood of default and expected loss.

2) Expectations for institutional framework and management's capabilities and approach to financial risks are assumed to be predictive for the likelihood of default and expected loss.

3) Indicators for financial position and performance are assumed to be predictive for the likelihood of default and expected loss, and the rating category criteria are believed to be appropriate.

4) Indicators for leverage and debt coverage are assumed to be predictive for the likelihood of default and expected loss, and the rating category criteria are believed to be appropriate.

5) Expectations for legal, regulatory, liquidity, and financial market risks, integrity and transparency of financial reporting, governance, financial performance of counterparties and the likelihood and nature of support by a government or financial party are assumed to be predictive for the likelihood of default/expected loss.

The main assumptions underlying the methodology used to determine the credit ratings for Ekurhuleni Water Care Company are :

1) Expected future trends for the relevant industry(ies) structure, competitive dynamics, supply & demand, regulatory environment, and technology are assumed to be predictive for the likelihood of default and expected loss.

2) Expectations for competitive/market position and management's capabilities and approach to business and financial risks are assumed to be predictive for the likelihood of default and expected loss.

3) Indicators for profitability, interest coverage, and asset quality are assumed to be predictive for the likelihood of default and expected loss, and the rating category criteria are believed to be appropriate.

4) Indicators for cash flow generation, leverage, and debt coverage are assumed to be predictive for the likelihood of default and expected loss, and the rating category criteria are believed to be appropriate.

5) Expectations for legal, regulatory, liquidity, and financial market risks, mergers/acquisitions and recapitalization events, integrity of financial reporting, corporate governance, and the likelihood and nature of support or weakening influence from a parent, affiliate, government or financial party are assumed to be predictive for the likelihood of default/expected loss.

Information sources used to prepare the ratings are the following: parties involved in the rating, public information, and confidential and proprietary Moody's information.

Information types used to prepare the ratings include the following: Financial data, Economic and demographic data, Public information, and Moody's information.

Moody's adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources Moody's considers to be reliable, including, when appropriate, independent third-party sources. However, Moody's is not an auditor and cannot in every instance independently verify or validate information received in the rating process. The information available and considered in determining the credit rating is of appropriate quality relative to that available for similar obligors, securities or money market instruments.

Moody's considers the quality of information available on the rated entity, obligation or credit satisfactory for the purposes of issuing this review and of appropriate quality relative to that available for similar rated entities, obligations or credits.

Moody's considers the quality of information available on the rated entity, obligation or credit satisfactory for the purposes of issuing a rating. Moody's adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources Moody's considers to be reliable including, when appropriate, independent third-party sources. However, Moody's is not an auditor and cannot in every instance independently verify or validate information received in the rating process.

The ratings have been disclosed to the rated entities prior to public dissemination.

The ratings have been disclosed to the rated entities or their designated agent(s) and issued with no amendment resulting from that disclosure.

The ratings for Cape Town, City of, Ekurhuleni Water Care Company, Ekurhuleni, City of, Johannesburg, City of, Nelson Mandela, Metropolitan Municipality, and uMhlathuze, City of are solicited. Please refer to Moody's Policy for Designating and Assigning Unsolicited Credit Ratings available on its website www.moody.com.

Credit ratings are Moody's current opinions of the relative future credit risk of entities, credit commitments, or debt or debt-like securities rated by Moody's. Moody's defines credit risk as the risk that an entity may not meet its contractual, financial obligations as they come due and any estimated financial loss in the event of default. Credit ratings do not address any other risk, including but not limited to: market liquidity risk, market value risk, or price volatility. Credit ratings are not statements of current or historical fact. Credit ratings do not constitute investment or financial advice, and credit ratings are not recommendations to purchase, sell, or hold particular securities. Credit ratings do not comment on the suitability of an investment for any particular investor. Moody's issues its credit ratings 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.

The volatility for the credit ratings for Cape Town, City of, Ekurhuleni, City of, Johannesburg, City of, Nelson Mandela, Metropolitan Municipality, and uMhlathuze, City of are:

- 1) Fundamental elements to economic performance are typically based on slow moving factors, such as demographic shifts or transformational changes to technology. Economic growth and wealth forms an important basis of the financial foundation of a government and is expected to remain stable over extended periods of time. Moderate, short-term swings in economic trends are not likely to lead to rating volatility. Unexpected/severe downgrades/shocks to economic trends are more likely to result in a higher degree of volatility to the downside or multi notch rating changes. Sustained improvements in economic trends may generally result in upward movement in ratings by one notch.
- 2) The institutional framework, which is established by a set of legislative acts, and management's capabilities and approach to financial risks tend to be stable over time. Changes to the institutional framework typically occur at a slow pace, providing ample time for an administration to adopt new policies and procedures to minimize the potential financial impacts. Jurisdictions where staff turnover is high may lead to greater volatility in the assessment of management's abilities. Sudden unpredictable changes can lead to institutional instability. Rating levels are sensitive to the authority's capability to formulate and implement cohesive policy. Material deterioration in the capability to effectively formulate and implement policy can lead to a multi-notch downgrade / downside rating pressure. Sustained improvements in the capability to effectively formulate and implement policy may generally result in upward movement in ratings by one notch.
- 3) Sustained positive / negative trends in financial position and performance, impacting a variety of financial indicators such as cash from operations and borrowing requirements, can lead to positive/negative ratings changes over the rating horizon. Changes in these financial indicators may lead to changes in debt burdens which impacts the probability of default. Short-term fluctuations, especially when not accompanied by a defining trend, would generally not impact the rating level itself and not necessarily lead to rating changes. Systemic changes in financial position and performance are more likely to result in a higher degree of volatility to the downside or multi notch rating changes. Sustained improvements in financial position and performance may generally result in upward movement in ratings by one notch.
- 4) Rating levels are sensitive to leverage and debt coverage metrics. Material increase in leverage ratios are more likely to lead to negative rating pressure while improvements in debt coverage are more likely to lead to positive rating pressure. Combined severe deterioration in debt burden and debt affordability are likely to lead to a multi-notch downgrade / downgrade rating pressure. Sustained improvements in these factors may generally lead to upward movement in ratings by one-notch.
- 5) A rapid deterioration in political stability, government and external liquidity position, or banking system health over a short period of time are usually associated with multi-notch downward rating moves. Sustained improvements in these factors may lead to upward rating movements, usually confined to one notch.

The volatility for the credit ratings for Ekurhuleni Water Care Company are :

- 1) An entity's competitive position is expected to be stable over the 18 -- 24 month rating horizon and generally will not lead to rating volatility. Unexpected changes in technology, regulation, market participants or consumer preferences that negatively (or positively) impact an entity's competitive position within its market, may lead to multiple notch ratings changes during the course of the ratings horizon.
- 2) Operating strategy effectiveness is typically evidenced by an entity's performance metrics over the medium to long term, typically beyond the rating horizon, and generally will not lead to rating volatility. Changes in

performance metrics during the 18-24 month rating horizon will not generally lead to high degrees of rating volatility (more than 1 rating notch). Sustained improvement or deterioration in performance metrics beyond Moody's expectations could lead to multi notch rating changes.

3) Rating levels are highly sensitive to financial strategy. Material changes to financial strategy which increase or decrease financial risk and liquidity may change the entity's ability to weather financial and business cycles. A change in appetite for financial risk may lead to multi-notch downward rating changes. Changes in financial strategy which reduce risk are likely to lead to single notch upward rating changes during the rating horizon.

4) Rating levels can be sensitive to changes in assumptions about an entity's financial position. Metrics that measure financial position tend to vary within a range of expected levels during the course of an 18 -- 24 month rating horizon, and modest variances are not expected to lead to multi-notch rating changes. Large, unexpected changes to assumptions regarding financial position, including measures related to financial leverage, liquidity, and resources available to meet financial obligations, may trigger multi-notch rating changes over the ratings horizon.

5) Rating levels can be greatly impacted by changes in governance structure. Enterprise governance is expected to be stable during and beyond the rating horizon, and therefore not cause volatility in ratings. Material changes in governance, ownership structure, or support to or from other entities are likely to lead to multi notch rating changes.

The sensitivity to assumptions for the credit ratings of Cape Town, City of, Ekurhuleni, City of, Johannesburg, City of, Nelson Mandela, Metropolitan Municipality, and uMhlathuze, City of are:

1) Moody's expects economic factors and the operating environment to remain stable over a 12-18 month horizon. Ratings are sensitive to significant changes in assumptions of the future economic trends and the operating environment over an extended period of time. If economic trends are significantly weaker over a sustained period of time, ratings could face a one-notch downgrade. For example, a temporary recession followed by a return to typical growth levels would likely not result in a rating downgrade, but a permanent decline in a key sector of the economy resulting in a material decline in GDP per capita could result in a downgrade.

2) Moody's expects the institutional framework within which local and regional governments operate to be stable over the rating horizon. Changes in the institutional framework tend to be infrequent and modified on a slow pace. Ratings are sensitive to changes to these assumptions. For example, a constitutional change that allows for greater flexibility of revenue generation would result in a ratings upgrade. The sensitivity of the rating change would be relative to the change in the institutional framework.

3) Moody's assumes a local or regional government's financial position and performance metrics are stable over the 12-18 month horizon. The rating is weakly sensitive to short-term changes in these assumptions and more sensitive to changes in the multi-year trend. For example, a single year surplus matched with a moderate increase in revenue growth may not result in a rating change, while a significant deficit matched by a significant decrease in revenue, with multiple years of smaller deficits planned, could result in a multi-notch downgrade. A change in an entity's fiscal target could also result in a ratings change. For example, a focus on lower revenue growth, which threatens the recurrent achievement of balanced budgets, could result in a single notch downgrade.

4) Moody's expects assumptions for leverage and debt coverage to be stable over a 12-18 month horizon. Metrics that measure leverage and debt coverage tend to vary within a narrow range of expected levels during a 12-18 month period and modest variances are not expected to lead to multi-notch rating changes. Significant changes to these levels could result in multi-notch ratings. For example, a doubling of an entity's leverage within a 12 month span could result in a one or more notch downgrade. If actual results are materially different from assumptions, this could also result in multi-notch rating changes. For example, an entity's change in debt policy which results in a material decrease in debt coverage, as opposed to an assumption of stable debt coverage, could result in a one or more notch downgrade relative to the size of the change from assumptions.

5) Moody's assumes that the legal, regulatory and financial market risks are stable over the medium-term. Rating levels are sensitive to rapid changes in these factors. If these elements are strengthened and/or enforcement is increased, this could result in a one-notch upgrade. For example, if courts increase the enforcement of legal provisions in contracts, thereby increasing bondholder protection, this would be seen as a strengthening of the legal and regulatory framework, and may result in a one or more notch upgrade. If financial market risks deteriorate, such as a change in a Central Bank's policy towards foreign exchange

markets, for example the fixing of the exchange rate to an artificially low level compared to market fundamentals, this could result in a one or more notch downgrade.

The sensitivity to assumptions for the credit ratings for Ekurhuleni Water Care Company are :

1) Moody's assumptions about the entity's competitive position within its business sector are presumed to remain stable over our rating horizon (18-24 months). Factors that can affect the entity's competitive position include changes in market share over time; disruptive pricing affecting either a) customer demand or b) the cost of supplying goods or services; new market entrants; barriers to entry of new competitors; or product substitution. If Moody's assumptions of competitive position are inaccurate, and the entity experiences forces which are expected to lead to sustained improvement or degradation in competitive position for the longer term, this may cause ratings to move upwards or downwards, depending on the speed of change and the entity's ability to react to the change. Examples include changes in energy or commodity prices, reduced demand for a facility do to a change in service level, or less demand for an enterprise due to slowing economic conditions. Examples include a spike in the price of a commodity that a power plant relies on to generate its power or the loss of connecting passenger service at a hub airport.

2) Moody's assumes that an entity's business profile, which incorporates its operating strategy, will evolve slowly, and is therefore unlikely to lead to rating changes over the 18 -- 24 month rating horizon. Business profile captures fundamental differences between entities in the same sector. An entity's overall business profile incorporates expectations of volatility in revenue and earnings; the perceived strength of the entity's position in its market; and characteristics of its product offering, such as differentiation with competitive offerings and proven adoption by customers. Operating strategy encompasses decisions regarding the entity's supply chain and distribution channels; decisions regarding outsourcing production versus operating production facilities; directing growth capital towards acquisitions rather than internal development; or divesting a stable but mature business for one which is believed to offer greater future growth at the cost of higher near-term investment. Ratings are sensitive to differences in business profile. For example, higher levels of product, segment or geographic diversification are generally a positive factor which is likely to reduce volatility in sales and earnings. The entity's degree of vertical integration has mixed considerations for ratings; vertical integration provides greater control over sourcing and distribution, but also creates a higher level of fixed costs which may be a burden during periods of cyclical declines. An entity's business profile will change slowly, generally due to strategic decisions which are executed in the long term, and therefore will rarely be the source of short term rating changes. If there is an unexpected change in business profile, such as a decision to add or divest business segments or enter new markets within a short period of time, it could result in rating changes of one or more notches to reflect the new view of risk and opportunities over the rating horizon.

3) Moody's ratings include assumptions about financial strategy and financial policy over the next 18 -- 24 months. Assumptions include management's appetite for debt incurrence and financial leverage; planning for debt maturities; management's decisions regarding deployment of capital; and deployment of profits (shareholder returns vs. investment in the business). Examples of changes to financial policy may be in the form of a shift in dividend policy; a change in how to finance seasonal working capital or manage timing of payables; or decisions of how much cash to hold in reserves to soften the impact of business cycles. Financial strategy is generally stable over the rating horizon. Unanticipated changes to a company's financial strategy, which may be accompanied by significant changes in financial leverage or capitalization, may lead to rating changes of one or more notches upwards or downwards.

4) Moody's assumptions about the entity's governance structure within its market(s) are generally stable over our rating horizon (18-24 months). Factors affecting governance include changes in ownership or control of the entity's operational and strategic decision making; support provided to, or received from, other corporate or government entities; the strength and independence of management; and participation in mergers, acquisitions or divestitures. Changes to an entity's governance are rare but could result in multi-notch rating changes as it could positively or negatively impact the entity's future operating strategy and financial position. Governance changes are common at the time of a sale or leveraged buy-out of a company, due to a change in financial policies which are expected to be adopted by the new owners. For example, expectations are that a sale to a financial buyer will be accompanied by financial policies which are associated with a higher risk profile. These types of transactions generally result in ratings being lowered by multiple notches at the time of the transaction. Conversely, a sale to a buyer (either company or investor) or an initial public offering of stock is associated with more benign financial policies, and may lead to an upgrade of one or more notches at the time of the sale.

5) Moody's ratings include assumptions about this entity's financial position, as measured by financial metrics, over the next 18 -- 24 months. Assumptions include the entity's anticipated earnings levels, operating expenses, interest rates paid on debt, and cash flow generation, all of which contribute to an entity's financial

metrics. These measures may be impacted by unanticipated expenses, changes to interest rate levels, tax changes or business decisions that change expenditure or capital levels. Modest changes to financial metrics over short periods are typical within most companies and industries. Ratings are not generally sensitive to modest changes in financial metrics which are due to expected business cycles or economic cycles and which are not seen as affecting an entity's long term viability or business profile. However, expectations that an entity's financial metrics are likely to change meaningfully (either positively or negatively) for a longer term could lead to rating changes of one or more notches upwards or downwards. Examples that are common among all industries include one-time debt-funded share buybacks of significant size, which increase debt and cause leverage ratios to remain at higher levels than previously expected into the future. Rating downgrades of one or more notches are common in response to these scenarios.

Please see Moody's Rating Symbols and Definitions on the Ratings Definitions page on www.moody.com for further information on the meaning of each rating category and the definition of default and recovery.

Moody's credit ratings are opinions of the relative credit risk of financial obligations translating into an ordinal ranking of issuers and financial obligations across asset classes and geographies. As such, no absolute probability of default nor expected loss given default is assigned to each individual credit rating. Please refer to the following link for an index of Moody's default studies.

<https://www.moody.com/Pages/GuideToDefaultResearch.aspx>.

Please see Moody's Rating Symbols and Definitions on the Ratings Definitions page on www.moody.com for further information on the time horizon in which a credit rating action may be expected after a review or outlook action took place.

I hereby attest, as a person who has responsibility for these Credit Rating Actions, that to the best of my knowledge:

1. No part of these Credit Ratings were influenced by any other business activities;
2. The Credit Ratings were based solely on the merits of the obligor, security, or money market instruments being rated; and
3. The Credit Ratings were an independent evaluation of the credit risk of the obligors, securities, or money market instruments.

Sebastien Hay, Senior Vice President/Manager

Regulatory disclosures contained in this press release apply to the credit rating and, if applicable, the related rating outlook or rating review.

Moody's general principles for assessing environmental, social and governance (ESG) risks in our credit analysis can be found at http://www.moody.com/researchdocumentcontentpage.aspx?docid=PBC_1288435.

At least one ESG consideration was material to the credit rating action(s) announced and described above.

Please see www.moody.com for any updates on changes to the lead rating analyst and to the Moody's legal entity that has issued the rating.

Please see the ratings tab on the issuer/entity page on www.moody.com for additional regulatory disclosures for each credit rating.

Daniel Mazibuko
Associate Lead Analyst
Sub-Sovereign Group
Moody's Investors Service South Africa (Pty) Ltd.
The Forum
2 Maude Street
2196 Sandton
Johannesburg
South Africa
JOURNALISTS: 44 20 7772 5456
Client Service: 44 20 7772 5454

Marie Diron
MD - Sovereign Risk
Sub-Sovereign Group
JOURNALISTS: 44 20 7772 5456
Client Service: 44 20 7772 5454

Releasing Office:
Moody's Investors Service South Africa (Pty) Ltd.
The Forum
2 Maude Street
2196 Sandton
Johannesburg
South Africa
JOURNALISTS: 44 20 7772 5456
Client Service: 44 20 7772 5454



© 2021 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED BY MOODY'S (COLLECTIVELY, "PUBLICATIONS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES ITS PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN

WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing its Publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$5,000,000. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY550,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.