

1 September 2023 – Neuss, Germany

## Rating Action / Update:

**Creditreform Rating has affirmed the unsolicited corporate issuer rating of EnBW Energie Baden-Württemberg AG at A- and revised the outlook from negative to stable. The initial unsolicited short term issuer rating was set to L2 (High level of liquidity).**

Creditreform Rating (CRA) has affirmed the ratings of the unsolicited, public corporate issuer rating of EnBW Energie Baden-Württemberg AG – hereinafter referred to as “the Group”, and the unsolicited corporate issuer rating of EnBW International Finance B.V. (“EnBW Finance”), as well as the issue rating of the long-term local currency senior unsecured notes issued by EnBW International Finance B.V. at A-. CRA has revised the outlook of the aforementioned ratings from negative to stable. The initial unsolicited short-term rating has been set to L2 (High level of liquidity).

## Current relevant factors for the rating

The following considerations were of specific relevance for the rating assessment:

- Significant increase in revenues in 2022 against the prior year due to ongoing high energy price levels
- Adjusted EBITDA in 2022 substantially increased, predominantly driven by the segment Sustainable Generation Infrastructure
- Reduced volatility in gas and electricity markets in comparison to the prior year, geopolitical uncertainty remains elevated
- Ramp up in investments, with approximately EUR 14.4 billion of planned investments for the period 2023-2025
- EnBW sold minority shares in TransnetBW and the offshore wind farm He Dreiht in order to partially finance its investment programme.
- Strong operating result in H1 2023
- EnBW expects to reach upper end of range of EUR 4.7 to EUR 5.2 billion of adjusted EBITDA for 2023

## ESG-criteria:

CRA generally takes ESG factors (environment, social and governance) into account within its rating decisions. In the case of EnBW Energie Baden-Württemberg AG we have not identified any ESG factors with significant influence.

As an integrated energy corporation with still a significant share of conventional energy sources (as of the end of 2022, 42% of the generation capacity is from renewables), EnBW is exposed to increased sustainability risks. This could have negative implications for business- and financial risk in the future. However, we do recognize a clear and plausible strategy to reduce these risks and increase the share of renewable generation capacity in accordance with societal and political goals. The EnBW Group expects to make gross investments of approximately EUR 14.4 billion during the period 2023 and 2025, translating into approximately EUR 4.8 billion per year. Approximately 80% of this is to be allocated towards growth projects in order to future proof the grids and expand renewable generation capacity. The EnBW Group plans to reduce its scope 1 and 2 emissions by 50% by 2027 against the 2018 reference year, with 70% by 2030 and expects to reach climate neutrality by 2035 with respect to scope 1 and 2.

## Analysts

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**ESG factors** are factors related to environment, social issues and, governance. For more information, please see the "Regulatory requirements". CRA generally takes ESG relevant factors into account, when assessing the rating object and discloses them when they have a significant influence on the creditworthiness of the rating object, leading to a change in the rating result or the outlook.

The EnBW Group has an extensive green financing framework, which underpins the Group's corporate strategy and contributes to achieving sustainability targets. In accordance with EnBW's green financing framework, it is exclusively used to finance projects in renewable energies, clean transport as well as in the recently added category of electricity grids in 2022 as it is a focus of the Group's investment programme, which also plays a key role in the energy transition. EnBW successfully placed EUR 3.5 billion of green financing instruments on the capital markets between 2018 and 2022.

A general valid description of Creditreform Rating AG, as well as a valid description of corporate ratings for understanding and assessing ESG factors in the context of the credit rating process, can be found [here](#).

### Rating result

The current unsolicited corporate issuer rating of **A-** attests EnBW AG, with a high degree of credit worthiness and a low risk of default. This rating assessment is largely based on the Group's financial profile, the substantial level of regulated activities and its high degree of systemic relevance as well as the Group's strategic direction with regard to the energy transition. Additionally, the shareholder structure of EnBW has a positive effect on the rating. Based on the shareholder structure, as well as the systemic relevance of the Group, we assume it to be highly likely that the relevant public institutions will provide extraordinary financial support to EnBW in times of urgency.

These factors are slightly offset by the market price exposure, as well as increased liquidity risks as the Group's liquidity planning is subject to uncertainty with respect to margin requirements. Additionally, we expect large cash-outflows related to the Group's investment programme. Between 2023 and 2025, the Group expects to invest EUR 14.4 billion, which will most likely lead to increases in indebtedness. We however believe that the financial key metrics of the Group will remain relatively stable in the short- to mid-term, as the Group is divesting minority shares in assets to partially finance its investment programme.

### Outlook

The one-year outlook for the Group is **stable**. We have revised the outlook from negative to stable as the performance of the Group has been very strong over the past year and the expectation is that it will achieve the upper end of the forecasted range of adjusted EBITDA of 4.7 to EUR 5.2 billion. In addition, volatility on the energy markets has dropped in comparison to the prior year as risks regarding the energy security have decreased. Geo-political risks remain elevated.

#### Best-case scenario: A-

In our best-case scenario for one year, we assume a rating of A-. Despite its strong operating performance and the expectation that EnBW will surpass its forecasted range, we do not believe that an upgrade within the time horizon of one year is plausible. This assessment is based on the fact that the Group is ramping up investments, inevitably leading to significant cash-outflows and in all likelihood to a further increase in indebtedness over the next few years.

#### Please note:

The scenarios are based on information available at the time of the rating. Within the forecast horizon, circumstances may occur that could lead to a change of the rating out of the indicated range.

**Worst-case scenario: BBB+**

In our worst-case scenario for one year, we assume a rating of BBB+. This could be the case if the Group's adjusted EBITDA decreases significantly with a disproportionate increase in indebtedness in order to finance its investment programme, leading to a significant increase in leverage.

**Business development and outlook**

Due to volatility on the energy markets in both 2021 and 2022 revenues increased in 2022 by approximately 74% against the prior year and 184% against the business year 2020. This substantial growth in revenues is predominantly the result of higher average electricity and gas prices on the European energy markets. During the 2022 business year revenues amounted to EUR 56,003 million (2021: EUR 32,148 million). The higher revenues resulting from the surging electricity and gas prices were largely offset by a rise in the cost of materials.

EBITDA and operating profit significantly increased to EUR 4,582 million (2021: EUR 2,810 million) and EUR 2,255 million (2021: EUR 165 million) respectively. The increase was in part caused by non-cash, non-recurring effects such as a reversal of EUR 1,499 million on conventional power plants due to the improved medium term income forecasts, as well as the reversal of a provision for onerous contracts of EUR 394 million. Additionally income from derivatives, as well as a settlement payment of EUR 460 million from the German government related to gas curtailments and some other minor effects affected the Group's operating results. This was partially offset by higher expenses related to nuclear power of EUR -592 million. Depreciation remained elevated as in the 2022 business year, and the Group recognized impairments of EUR 712 million (2021: EUR 1,088 million), predominantly on two off-shore wind farms.

Table 1: Financials of EnBW Energie Baden-Württemberg | Source: EnBW Energie Baden-Württemberg AG Annual report 2022, standardized by CRA

| EnBW Energie Baden-Württemberg AG<br>Selected key figures of the financial statement analysis<br>Basis: Annual accounts and report of 31.3. (IAS, Group) | CRA standardized figures <sup>1</sup> |        |
|--|---------------------------------------|--------|
|  | 2021                                  | 2022   |
| Sales (million EUR)  | 32,148                                | 56,003 |
| EBITDA (million EUR)   | 2,810                                 | 4,582  |
| EBIT (million EUR)   | 165                                   | 2,255  |
| EAT (million EUR)  | 441                                   | 1,844  |
| EAT after transfer (million EUR)   | 363                                   | 1,738  |
| Total assets (million EUR)   | 69,339                                | 67,546 |
| Equity ratio (%)   | 13.82                                 | 21.13  |
| Capital lock-up period (days)  | 73.54                                 | 55.03  |
| Short-term capital lock-up (%)   | 77.42                                 | 29.45  |
| Net total debt / EBITDA adj. (factor)  | 20.82                                 | 18.68  |
| Ratio of interest expenses to total debt (%)   | 0.81                                  | 1.99   |
| Return on Investment (%)   | 0.38                                  | 2.76   |

<sup>1</sup> For analytical purposes, CRA adjusted the original values in the financial statements in the context of its financial ratio analysis. For example, when calculating the analytical equity ratio, deferred tax assets, goodwill (entirely or partly), and internally-generated intangible assets are subtracted from the original equity, whilst deferred tax liabilities are added. Net

Adjusted by non-recurring and non-operating effects the Group's adjusted EBITDA improved by approximately 11% against the prior year to EUR 3,286 million (2021: EUR 2,959 million), which is higher than the anticipated range of EUR 2,700 – 2,900 million in the Group's forecast of 2021. This increase was particularly driven by the Sustainable Generation Infrastructure segment, as a result of higher market prices, better wind conditions, and new additional solar parks as well as positive earnings contributions from trading positions. The Smart Infrastructure segment also contributed to a lesser extent to adjusted EBITDA growth resulting from strong operating performance at its subsidiary SENEK and B2B business at its subsidiaries. This was partially offset by a decrease in adjusted EBITDA in the System Critical Infrastructure segment that was mainly caused by higher expenses in relation to the grid reserve including re-dispatch costs in order to maintain the security of supply.

The net result increased significantly to EUR 1,844 million (2021: EUR 441 million) largely as a result of higher EBIT in comparison to the prior year, but also due to a higher investment result from the at equity reported participations at EUR 277 million (2021: EUR 180 million).

Cash-flow from operations stood at EUR 1,804 million (2021: EUR 7,598 million), significantly lower than the prior year. This was mostly due to working capital changes, in particular the receipt of higher security deposits against the background of the market price fluctuations on the European energy markets in 2021. Despite these working capital changes, the Group's cash generation improved significantly in 2022. This is evidenced by funds from operations, which stood at 3,046 million (2021: EUR 2,331 million) and were predominantly driven by better operating results.

Cash flows after investments was significantly negative at EUR -930 million (2021: EUR 4,724 million). During the business year the Group made gross investments of EUR 3,154 million (2021: EUR 2,809 million), of which approximately three quarters was allocated towards growth investments. For the 2023 to 2025 period, EnBW plans to invest approximately EUR 14.4 billion, representing approximately EUR 4.8 billion in annual gross investments. 80% of this amount will be allocated to growth investments and the main focus of these plans will be the expansion of the grids. We expect the ramp-up in investments to increase negative cash flow generation. However, the anticipated investments of EUR 14.4 billion, will partially be financed by divestments of approximately EUR 5.6 billion. EnBW sold a minority share of 24.95% in TransnetBW in May 2023. The transaction is expected to close in the second half of the year and the parties have not disclosed the financial details of the transaction. The KfW has an option for the acquisition of a further minority share of 24.95%. Additionally, EnBW also sold a minority share of 49.9% in the offshore wind farm he Dreih. This measure will significantly reduce the need for additional indebtedness, but we believe that the trend of increasing indebtedness will continue over the coming years.

The Group's indebtedness increased during the business year 2022 to EUR 12,891 (2021: EUR 11,250 million). EnBW's subordinated bonds of EUR 2,489 million have been partially allocated to adjusted equity in our financial metrics, supporting the result of the financial analysis. Predominantly due to its strong net result and a high OCI, the Group managed to increase its equity ratio from 13.82% to 21.13% with an adjusted equity of EUR 14,275 million (2021: EUR 9,585 million) The significant increase in OCI was mainly driven by a revaluation of pensions and income from cash flow hedges. The financial key metrics have shown an improvement against the

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total debt takes all balance sheet liabilities into account. Therefore, the key financial figures shown often deviate from the original values of the company.

prior year, partially also due to an improvement in non-operating and non-recurring income, but remain on a lower level than 2020. This is partially resulting from the balance sheet growth driven by fair value changes of derivative instruments.

During the first half year of 2023 revenues declined slightly to EUR 26,954 million (H1 2022: EUR 27,404 million), primarily resulting from the lower prices in gas trading activities despite the higher sales volumes. During the first half of 2023, the average spot price for natural gas on the Dutch TTF natural gas market fell to EUR 44.26 per MWh from EUR 98.14 per MWh during the same period in the prior year. Despite the fall in revenues, EBITDA and EBIT increased significantly to EUR 5,134 million (H1 2022: EUR 1,642 million) and EUR 3,921 million (H1 2022: EUR 770 million) respectively. This was mostly due to better performance in the segments System Critical Infrastructure and Sustainable Generation Infrastructure. In the System Critical Infrastructure segment, EBITDA increased mainly due to an expanding RAB driven by increasing investments as well as factoring in the higher expenses for the grid reserve including re-dispatch to maintain the security of supply. In the Sustainable Generation Infrastructure the increase was mainly driven by the area of Thermal Generation and Trading as the volumes generated could be sold at significantly higher prices compared to the prior year and the difficulties surrounding the gas supply in the prior year no longer applied this period. The EBIT was affected by impairments of EUR 371 million on conventional power plants. Net profit for the period was EUR 2,751 million (H1 2022: 673 million)

Table 2: Reconciliation EBITDA to adjusted EBITDA | Source: EnBW Energie Baden-Württemberg AG Annual report 2022, standardized by CRA

| H1 2023 Reconciliation EBITDA to adjusted EBITDA |              |              |
|--|--------------|--------------|
| in Mio. EUR                                      | H1 2022      | H1 2023      |
| Reported EBITDA                                  | 1,642        | 5,134        |
| Non-Operating items                              | 482          | -1,636       |
| <b>Adjusted EBITDA</b>                           | <b>2,124</b> | <b>3,498</b> |

The Group's adjusted EBITDA stood at EUR 3,498 million (H1 2022: EUR 2,214 million) and was significantly lower as reported EBITDA, as non-operating effects, largely driven by FV changes of derivatives, affected the income. The results relating to these fair value changes in derivatives are of a temporary nature and will be reversed over time.

Table 3: Adjusted EBITDA by segment | Source: EnBW Energie Baden-Württemberg AG Annual report 2022, standardized by CRA

| H1 2023 Adjusted EBITDA by segment    |              |              |
|---------------------------------------|--------------|--------------|
| in Mio. EUR                           | H1 2022      | H1 2023      |
| Smart Infrastructure for Customers    | 103          | 21           |
| System Critical Infrastructure        | 600          | 1,021        |
| Sustainable Generation Infrastructure | 1,552        | 2,607        |
| Other/Consolidation                   | -151         | -130         |
| <b>Total</b>                          | <b>2,124</b> | <b>3,498</b> |

Despite the significant increase in EBITDA, the Group's cash flow from operations fell substantially to EUR -76 million (H1 2022: EUR 1,419 million). The main reason for this was negative working capital changes. In particular due to increased cash outflows in relation to collateral in light of market price fluctuations. As, due to the high ongoing investments the cash flow from investing activities also was highly negative the Group was forced to increase indebtedness.

In our view the Group has developed well over the past year. The (operating) results have improved significantly and the investment programme is progressing. EnBW managed to sell minority shares in its subsidiary TransnetBW and the offshore windpark He Dreiht, which will reduce the need to finance its investment with indebtedness. The transaction prices for these divestures have not been disclosed. For the business year 2023, the Group expects to realize the upper end of the forecasted range of adjusted EBITDA between EUR 4.7 billion and EUR 5.2 billion. Particularly the System critical Infrastructure and Sustainable Generation Infrastructure segments will improve against the prior year. In the System Critical Infrastructure the negative effects for the grid reserve and redispatch costs that arose in 2022 no longer exists, which will most likely increase adjusted EBITDA performance. In the Sustainable Generation Infrastructure segment is expected to generate a significant increase in earnings against the prior year based on the earnings on the first half of 2023.

### Further ratings

Based on the long-term issuer rating and taking into account our liquidity analysis, the short-term rating of EnBW Energie Baden-Württemberg AG was set at **L2** (standard mapping), which corresponds to a high level of liquidity on the basis of the assessment for one year.

The rating objects of the issue rating are exclusively long-term senior unsecured issues, denominated in euro, issued by EnBW Energie Baden-Württemberg AG and which are included in the list of ECB-eligible marketable assets.

In addition to EnBW AG, the following issuer and its emissions listed below are considered within the scope of this rating:

- EnBW International Finance B.V.

The EnBW International Finance B.V., hereinafter also referred to as EnBW Finance, acts as a financing vehicle for the EnBW Group. In its capacity, EnBW Finance channels funds raised on the capital market, including through a Debt Issuance Programme (DIP) with a volume of up to EUR 10 billion, to companies within the EnBW Group. EnBW Energie Baden-Württemberg AG guarantees the liabilities of EnBW Finance B.V., specifically ensuring the timely payment of capital and interest for the issuances.

The primary purpose of EnBW Finance is to raise capital to finance the EnBW Group, particularly through the issuance of bonds. It significantly ensures long-term liquidity and financing between the companies within the EnBW Group.

Due to the financial, corporate and liability-related interconnections, an assessment of the rating for EnBW International Finance B.V. only makes sense within the context of the Group. Consequently, we derive the unsolicited Corporate Issuer Rating of EnBW International Finance B.V. from the unsolicited Corporate Issuer Rating of EnBW Energie Baden-Württemberg AG and therefore currently stands at **A-** with a **stable** outlook. The initial short-term rating was set at **L2**.

The unsolicited issue rating is exclusively valid for the long-term senior unsecured issues denominated in euros, issued by EnBW Finance B.V. and which are included in the list of ECB-

eligible marketable assets. The ECB list of eligible marketable assets can be found on the website of the ECB.

The Debt Issuance Programme (DIP) currently has a volume of up to EUR 10 billion. According to the most current prospectus dating from 18 April 2023, EnBW AG provides an unconditional and irrevocable guarantee for the proper and timely payment of principal, interest, and other amounts payable on the bonds.

We have provided the debt securities issued by EnBW Finance B.V. with a rating of **A-**. The rating is based on the corporate rating of EnBW Finance B.V.. Other types of debt instruments, or issues denominated in other currencies of the issuer have not been rated by CRA. For a list of all currently valid ratings and additional information, please consult the website of Creditreform Rating AG.

The following tables provide an overview of the ratings issued by Creditreform Rating AG in this context, as well as the key features of the Debt Issuance Program.

All future LT LC senior unsecured Notes that will be issued by EnBW Energie Baden-Württemberg AG or EnBW International Finance B.V., and those that have similar conditions to the current DIP programme, denominated in Euro and included in the list of ECB-eligible marketable assets will, until further notice, receive the same ratings as the current LT LC senior unsecured Notes issued under the DIP programme. Notes issued under the programme in any currency other than euro, or other types of debt instruments, have not yet been rated by CRA. For a list of all currently valid ratings and additional information, please consult the website of Creditreform Rating AG. For the time being, other emission classes or programmes (such as the Commercial Paper Programme) and issues that do not denominate in euro will not be assessed.

## Overview

Table 4: Overview of CRA Ratings | Source: CRA

| Rating Category                                       | Details    |                         |
|---|------------|-------------------------|
|   | Date       | Rating                  |
| EnBW Energie Baden-Württemberg AG                     | 01.09.2023 | <b>A- / stable / L2</b> |
| EnBW International Finance B.V.                       | 01.09.2023 | <b>A- / stable / L2</b> |
| Long-term Local Currency (LC) Senior Unsecured Issues | 01.09.2023 | <b>A- / stable</b>      |
| Other   | --         | <b>n.r.</b>             |

All future LT LC senior unsecured Notes that will be issued by EnBW Energie Baden-Württemberg AG or EnBW International Finance B.V., and those that have similar conditions to the current DIP programme, denominated in Euro and included in the list of ECB-eligible marketable assets will, until further notice, receive the same ratings as the current LT LC senior unsecured Notes issued under the DIP programme. Notes issued under the programme in any currency other than euro, or other types of debt instruments, have not yet been rated by CRA. For a list of all currently valid ratings and additional information, please consult the website of Creditreform Rating AG. For the time being, other emission classes or programmes (such as the Commercial Paper Programme) and issues that do not denominate in euro will not be assessed.

## Appendix

### Rating history

The rating history is available under:

<https://www.creditreform-rating.de/en/ratings/published-ratings.html>

Table 5: Corporate issuer rating of EnBW Energie Baden-Württemberg AG | Source: CRA

| Event          | Rating date | Publication date | Result      |
|----------------|-------------|------------------|-------------|
| Initial Rating | 13.04.2021  | 15.04.2021       | A- / stable |

Table 6: Corporate Issue rating of EnBW International Finance B.V. | Source: CRA

| Event          | Rating date | Publication date | Result      |
|----------------|-------------|------------------|-------------|
| Initial rating | 13.04.2021  | 15.04.2021       | A- / stable |

Table 7: LT LC senior unsecured issues by EnBW International Finance B.V. | Source: CRA

| Event          | Rating date | Publication date | Result      |
|----------------|-------------|------------------|-------------|
| Initial rating | 13.04.2021  | 13.04.2021       | A- / stable |

Table 8: Short-Term Issuer Rating EnBW International Finance B.V. | Source: CRA

| Event          | Rating date | Publication date | Result |
|----------------|-------------|------------------|--------|
| Initial rating | 1.09.2023   | 07.09.2023       | L2     |

### Regulatory requirements

The rating<sup>2</sup> was not endorsed by Creditreform Rating AG (Article 4 (3) of the CRA-Regulation).

The present rating is, in the regulatory sense, an unsolicited rating that is public. The analysis was carried out on a voluntary basis by Creditreform Rating AG, which was not commissioned by the Issuer or any other third party to prepare the present rating.

The rating is based on the analysis of published information and on internal evaluation methods for the assessment of companies and issues. The rating object was informed of the intention of creating or updating an unsolicited rating before the rating was determined.

The rating object participated in the creation of the rating as follows:

|  |    |
|--|----|
| With Rated Entity or Related Third Party Participation | No |
| With access to Internal Documents                      | No |
| With Access to Management                              | No |

<sup>2</sup> In these regulatory requirements the term "rating" is used in relation to all ratings issued by Creditreform Rating AG in connection to this report. This may concern several companies and their various issues.

A management meeting did not take place within the framework of the rating process.

The documents and information gathered were sufficient to meet the requirements of Creditreform Rating AG's rating methodologies.

The rating was conducted based on the following rating methodologies and the basic document.

| Rating methodology                                    | Version number | Date         |
|---|----------------|--------------|
| <a href="#">Corporate Ratings</a>                     | 2.4            | July 2022    |
| <a href="#">Corporate Short-Term Ratings</a>          | 1.0            | June 2023    |
| <a href="#">Government-related Companies</a>          | 1.1            | May 2023     |
| <a href="#">Non-financial Corporate Issue Ratings</a> | 1.0            | October 2016 |
| <a href="#">Rating Criteria and Definitions</a>       | 1.3            | January 2018 |

The documents contain a description of the rating categories and a definition of default.

The rating was carried out by the following analysts:

| Name            | Function     | Mail-Address                     |
|-----------------|--------------|----------------------------------|
| Rudger van Mook | Lead-analyst | R.vanMook@creditreform-rating.de |
| Tim Winkens     | Analyst      | T.Winkens@creditreform-rating.de |

The rating was approved by the following person (person approving credit ratings, PAC):

| Name             | Function | Mail-Address                       |
|------------------|----------|------------------------------------|
| Tobias Stroetges | PAC      | T.Stroetges@creditreform-rating.de |

On 1 September 2023, the analysts presented the rating to the rating committee and the rating was determined. The rating result was communicated to the company on 4 September 2023. There has not been a subsequent change to the rating.

The rating will be monitored until Creditreform Rating AG withdraws the rating. The rating can be adjusted as part of the monitoring, if crucial assessment parameters change.

In 2011, Creditreform Rating AG was registered within the European Union according to EU Regulation 1060/2009 (CRA-Regulation). Based on this registration, Creditreform Rating AG is allowed to issue credit ratings within the EU and is bound to comply with the provisions of the CRA-Regulation.

### ESG-factors

You can find out whether ESG factors were relevant to the rating in the upper section of this rating report "Relevant rating factors".

A general valid description for Creditreform Rating AG, as well as a valid description of corporate ratings for understanding and assessing ESG factors in the context of the credit rating process, can be found [here](#).

### Conflict of interests

No conflicts of interest were identified during the rating process that might influence the analyses and judgements of the rating analysts involved or any other natural person whose services

are placed at the disposal or under the control of Creditreform Rating AG and who are directly involved in credit rating activities or in approving credit ratings and rating outlooks.

In the event of providing ancillary services to the rated entity, Creditreform Rating AG will disclose all ancillary services in the credit rating report at this point:

No ancillary services in the regulatory sense were carried out for this rating object.

#### **Rules on the presentation of credit ratings and rating outlooks**

The approval of credit ratings and rating outlooks follows our internal policies and procedures. In line with our "Rating Committee Policy", all credit ratings and rating outlooks are approved by a rating committee based on the principle of unanimity.

To prepare this credit rating, Creditreform Rating AG has used following substantially material sources:

#### Corporate issuer rating:

1. Annual report
2. Website
3. Internet research

#### Corporate issue rating:

1. Corporate issuer rating incl. information used for the corporate issuer rating
2. Documents on issues / instruments

There are no other attributes and limitations of the credit rating or rating outlook other than those displayed on the Creditreform Rating AG website. Furthermore, Creditreform Rating AG considers as satisfactory the quality and extent of information available on the rated entity. With respect to the rated entity, Creditreform Rating AG regarded available historical data as sufficient.

Between the time of disclosure of the credit rating to the rated entity and the public disclosure, no amendments were made to the credit rating.

The Basic Data Information Card indicates the principal methodology or version of methodology that was used in determining the rating, with a reference to its comprehensive description.

In cases where the credit rating is based on more than one methodology or where reference only to the principal methodology might cause investors to overlook other important aspects of the credit rating, including any significant adjustments and deviations, Creditreform Rating AG explains this fact in the credit rating report and indicates how the different methodologies or other aspects are taken into account in the credit rating. This information is integrated in the credit rating report.

The meaning of each rating category, the definition of default or recovery and any appropriate risk warning, including a sensitivity analysis of the relevant key rating assumptions such as mathematical or correlation assumptions, accompanied by worst-case scenario credit ratings and best-case scenario credit ratings are explained.

The date at which the credit rating was initially released for distribution and the date when it was last updated, including any rating outlooks, is indicated clearly and prominently in the Basic Data Information Card as a "rating action"; initial release is indicated as "initial rating", other

updates are indicated as an “update”, “upgrade” or “downgrade”, “not rated”, “confirmed”, “selective default” or “default”.

In the case of a rating outlook, the time horizon is provided during which a change in the credit rating is expected. This information is available within the Basic Data Information Card.

In accordance with Article 11 (2) EU-Regulation (EC) No 1060/2009, a registered or certified credit rating agency shall make available, in a central repository established by ESMA, information on its historical performance data including the rating transition frequency and information about credit ratings issued in the past and on their changes. Requested data are available at the [ESMA website](#).

An explanatory statement of the meaning of Creditreform Rating AG’s default rates are available in the credit rating methodologies disclosed on the website.

### Disclaimer

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Creditreform Rating AG

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