# Bank of China Limited

# Transition Bonds Management Statement (2023 Version)

Bank of China Limited ("BOC" or "the Bank") is responsible for the preparation and fair presentation of this Transition Bonds Management Statement (the "Statement").

In September 2020, China announced that it will strengthen its policies and measures to promote Green and Low-carbon development, striving to reach carbon emissions peak before 2030 and carbon neutrality before 2060. China will facilitate global climate governance and will contribute towards the achievement of the Paris Agreement through enhancing its Nationally Determined Contributions. BOC recognizes the significant importance of green finance for its long-term business development and progressively integrates "Green and Low-carbon Finance" into the Bank's overall sustainable development strategy. While firmly developing the green finance business, BOC also leverages its financial tools and expertise to support transition activities towards low-carbon or zero-carbon in China and across the world. Not only does BOC work to reduce carbon emissions associated with its own business operations, BOC furthermore supports the traditional industries in the transition pathway towards low-carbon or zero-carbon through financing business.

"Green and Low-carbon Finance" in this Statement is referred to as encompassed of: (A) Green finance which aligns with international market accepted principles and standards, (B) Transition finance which aligns with international guidelines or standards, and covers projects for the reduction of pollution and emissions from traditional industries through technical retrofits

and equipment upgrades towards low-carbon or zero-carbon. Ultimately, transition finance intends to provide financial assistance to sectors considered to be in transition, and aim at meeting their carbon neutrality targets as a transitional form.

## Purpose

In the context of the official launch of the G20 Framework for Transition Finance, this Statement has been prepared to demonstrate that BOC will issue offshore Transition Bonds (A) in reference to the *ICMA Climate Transition Finance Handbook (2023)*[1] disclosure recommendation on issuers' transition activities, (B) with reference to the four pillars of *ICMA Green Bond Principles (2021)*[2] and *Sustainability Bond Guidelines (2021)*[3], (C) in line with the industry economic activity classification and technical indicators for climate transition from *IPSF Common Ground Taxonomy*[4] or *EU Taxonomy for Sustainable Activities*[5] or *Climate Bonds Initiative Sector Criteria*[6], and with reference to the sections of the above standards that relate to the transition industry, as well as the principles of *"Avoidance of Carbon Lock-in"* and *"Do No Significant Harm"*, to fund eligible transition projects which are in line with the international science-based strategic pathways of carbon neutrality goals.

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[1] ICMA Climate Transition Finance Handbook: https://www.icmagroup.org/assets/documents/Sustainable-finance/2023-updates/Climate-Transition-Finance-Handbook-CTFH-June-2023-220623v2.pdf

[2] ICMA Green Bond Principles: https://www.icmagroup.org/assets/documents/Sustainable-finance/2022-updates/Green-Bond-Principles-June-2022-060623.pdf

[3] ICMA Sustainability Bond Guidelines: https://www.icmagroup.org/assets/documents/Sustainable-finance/2021-updates/Sustainability-Bond-Guidelines-June-2021-140621.pdf

[4] IPSF Common Ground Taxonomy: https://finance.ec.europa.eu/system/files/2022-06/220603-international-platform-sustainable-finance-common-ground-taxonomy-instruction-report_en.pdf

[5] EU Taxonomy for Sustainable Activities: https://ec.europa.eu/sustainable-finance-taxonomy/

[6] Climate Bonds Initiative Sector Criteria: https://www.climatebonds.net/standard/sector-criteria

## Assertions from the Management

BOC's management hereby asserts that it will perform disclosures with reference to the *ICMA Climate Transition Finance Handbook (2023)*, and: (A) disclose the intended eligible projects categories in the "Use of Proceeds" section, (B) establish a thorough internal process for "Project Evaluation and Selection", (C) establish an appropriate tracking process for the "Management of Proceeds", (D) annually perform and keep readily available up-to-date report on the proceeds allocation and the environmental impacts of the eligible projects.

## With Reference to the ICMA Climate Transition Finance Handbook (2023) Disclosure Recommendation

BOC has considered below four disclosures with reference to the *ICMA Climate Transition Finance Handbook (2023)* disclosure recommendation, in order to raise market awareness of BOC's Green and Low-carbon Finance strategy which includes transition finance, relevant internal governance and management, business achievement, applicable credit policy and planning in the future, information disclosure planning and, as a financial institution, BOC's credit service mechanism for helping corporate clients to achieve decarbonization strategy and targets.

### 1. Climate Transition Strategy and Governance

In the course of its development over a century, BOC has always taken social responsibilities seriously. In recent years, BOC has been increasingly playing an active role in China's decarbonization steps towards carbon neutrality and global transition towards low-carbon or zero-carbon. BOC has already embodied green

finance into the Bank's overall strategy, and going forward it will further integrate "Green and Low-carbon Finance" into the Bank's overall development strategy.

BOC integrated green finance into the bank-wide "14th Five-Year Development Plan", and took the "14th Five-Year Plan of Bank of China for Green Finance" (the "Plan") as the strategic guidance to guide the comprehensive deepening of green finance practices. Over 20 supporting measures covering 13 aspects were prepared, including credit approval, performance assessment, and risk mitigation. Meanwhile, based on the Plan, a detailed roadmap has been formulated in various business areas such as Green and Low-carbon credit, green bond underwriting, green bond investment, etc.

BOC continuously strengthens the leadership role of the Board of Directors and the management in Green and Low-carbon Finance business. In order to monitor the implementation of the Plan, a Green Finance Committee (the "Committee") has been established to coordinate the overall management and professional decision-making of Green and Low-carbon Finance of the whole group. The Committee is chaired by a member of senior management in charge of risk management departments, with more than 22 departments at the Headquarter serving as permanent members, such as, Credit Management Department, Corporate Banking Department, and Asset and Liability Management Department, etc. to coordinate all business lines and institutions across the group to develop green finance. The primary responsibilities of the Committee include implementing the resolutions and decisions of the Board of Directors (or its special committee) related to green finance; forwarding and acting on important national and regulatory policies; reviewing key policies and systems for

managing green finance and ESG risks; organizing and conducting self-evaluations of green finance; and hearing reports on green finance development. The Committee reviews and reports the Bank's Green and Low-carbon Finance progress against the Plan to the Board of Directors annually, and is responsible for the strategic direction and implementation plan for the year ahead. Meanwhile, every newly appointed director is required to attend separate training on Green and Low-carbon Finance provided by professional external training institutions.

The decarbonization targets of BOC's business strategy are in full alignment with China's goals of reaching carbon emissions peak before 2030, and achieving carbon neutrality before 2060.

In order to achieve these targets, as a financial institution, **firstly**, BOC will further expand green lending, referring to the Green and Low-carbon transition related technical standards and requirements specified in loan's project report, environmental assessment report, and regulatory approval filings, then further clarify the Green and Low-carbon transition benchmarking standards in the full working process including credit approval, post-loan management, etc. **Secondly**, BOC will increase credit support in transition projects towards low-carbon or zero-carbon, such as technological transformation of traditional industries. When it comes to the selection of the Green and Low-carbon projects including transition finance, BOC will focus on the domestic steel, cement, electrolytic aluminum and other "two high and one overcapacity" (i.e. high pollution, high energy consumption and overcapacity) industries, and follow the principles of commercialization and sustainability to guide the clients in such industries to achieve their decarbonization targets as per relevant processes and

technologies, and maximizing environmental and social benefits, hence actively promoting companies to achieve their own climate transition goals and strategies. Meanwhile, BOC aims to contribute to the realization of the United Nations Sustainable Development Goals (the "Goals").

Additionally, BOC actively participates in domestic and international cooperation on green finance and has signed or participated in more than 10 green and ESG related initiatives, including the United Nations' Principles for Responsible Banking (PRB), Task Force on Climate–Related Financial Disclosures (TCFD), and "Green Investment Principles for the Belt and Road Initiatives" (GIP); and has supported the 15th Conference of the Parties to the United Nations Convention on Biological Diversity (COP15). BOC will proactively strengthen international cooperation with professional organizations that advocate Green and Low-carbon Finance, to collectively drive the realization of the goals set in the Paris Agreement.

## 2. Business Model Environmental Materiality

BOC is one of the biggest Chinese state-owned commercial banks and also the Bank with the highest degree of globalization in China. It has an extensive business and lending portfolio to clients across various geographies and sectors.

In consideration of China's goals of achieving emissions peak before 2030 and carbon neutrality before 2060, BOC believes that the future climate and environmental policies, regulatory and market environment factors will result in more severe challenges faced by traditional industries with high emissions. Therefore, the Bank pays significant attention to transition towards low-carbon or zero-carbon within these industries, and will expand BOC's transition

financing to effectively reduce BOC's carbon footprint and carbon risk exposure in credit portfolios.

BOC's Corporate Banking Department, Credit Management Department and Credit Approval Department jointly established the Whitelist for Green and Low-carbon projects to provide differentiated support in pricing, scale, EVA ("Economic Value Add"), and other performance indicators, as well as in resource allocation.

With the ongoing development of relevant climate policies in China and globally, BOC will continue to expand the Green and Low-carbon credit business and increase its share within the Bank's overall loan portfolio.

As of the end of 2022, BOC's domestic green credit balance denominated in both RMB and foreign currencies reached RMB 1,987.2 billion equivalent, representing a year-on-year (YoY) growth of 41.08% with a non-performing credit ratio below 0.5%.

Meanwhile, the Bank promotes the transformation and upgrading of carbon-intensive industries and tightens credit balance control over brown industries. In 2022, the proportion of brown credit balance in BOC's domestic corporate business continued to decline and fell below 10%. BOC has adopted strict management and control policies towards new overseas coal mining and coal-fired power projects. Since the fourth quarter of 2021, BOC has ceased to provide financing for new overseas coal mining and coal-fired power projects. For those that have already entered financing agreements, BOC will fulfill the contract obligations in accordance with commercial principles.

In order to accelerate the further transformation of the industry structure of the Bank's credit investment, BOC is actively channeling the capital towards major green related industries, which were categorized as actively growing industries, and encouraging credit support. In 2022, the Bank formulated or revised nearly 10 credit policies for green-related industries, including hydrogen energy, wind power generation, pumped storage energy, and forestry, providing detailed guidance on customer standards and credit granting strategies. Meanwhile, BOC has been expanding the business opportunities on eligible Green and Low-carbon projects in several categories such as municipal sewage treatment, garbage treatment, solid waste treatment, industrial water treatment, flue gas treatment, energy-saving technological transformation, etc.

Going forward, BOC will further carry out research on Green and Low-carbon projects in growing industries and traditional industries to increase lending business in these related fields. Meanwhile, BOC has also selected National Green Finance Reform and Innovation Pilot Zones such as Huzhou in Zhejiang Province and Guangzhou in Guangdong Province as key areas, where BOC strengthens research work in local policies, optimizes business authorization system and coordinates with domestic and overseas branches to take advantages of local conditions, as well as to promote green and transition finance product innovation and create BOC's internal Green and Low-carbon Finance Reform Pilot Branch.

BOC will reinforce its business guidance to domestic and overseas branches on Green and Low-carbon Finance. For post-disbursement internal compliance inspections, the Bank will focus on the implementation of green and transition

projects, also build environmental indicators into the on-site inspection plan for BOC's corporate finance business lines.

### 3. Climate Transition Strategy and Targets to be Science-based

BOC has been continuously increasing its emphasis on the Green and Low-carbon Finance and progressively increasing credit support for Green and Low-carbon projects. The Bank conducted environmental footprint investigation, which covered over 11,000 branches in the Chinese Mainland and 62 other countries or regions around the world as of the end of 2022. The investigation results show that the group-wide total energy consumption and direct greenhouse gas ("GHG") emissions decreased by 4.86% and 15.58% for the period from 2019 to 2022, respectively.

In 2022, the Green Finance Committee reviewed and approved the "Policy of Bank of China for Managing Environmental (Climate), Social and Governance Risks Associated with Customers (Version 2022)". The Bank improved the ESG risk management policies, systems, and processes in accordance with the national green and low-carbon development goals and plans, as well as relevant regulations including the environmental protection laws, regulations, industrial policies, and industry access policies. BOC also established an effective whole-process management approach covering risk identification, measurement, assessment, monitoring and reporting, as well as control and mitigation, to control or reduce the risks in the Bank's business activities.

BOC continuously strengthens its management of customers' ESG risks, and has established an ESG risk governance structure that is commensurate with its business size and attributes, with three lines of defense composed of business

departments, risk management departments, and audit departments to clarify ESG risk management responsibilities. The Bank identifies and classifies risks for clients based on factors such as potential clients' environmental (climate) and social risk level, industry, and development stage, and adopts stricter evaluation and review measures for high-risk customers.

BOC has further integrated its ESG risk management into the whole process of its main business, and clarified the client's ESG risk control responsibilities. Binding requirements to credit policies for environmental and social risk management of more than 80 industries were imposed, including agriculture, forestry, animal husbandry and fishery, mining and metallurgy, oil, gas and chemical engineering, construction, real estate, and transportation and logistics. These policies include explicitly prohibiting credit support for customers and projects engaged in illegal logging of natural forests, damage to biodiversity, poaching of wildlife, etc. At the same time, the Bank has conducted climate risk stress tests for eight carbon-intensive industries to comprehensively assess and respond to transition risks, and adopted "one vote veto" system for environmental protection in business approval processes.

## 4. Implementation Transparency

BOC will take issuing Transition Bonds as a starting point and appoint third party reviewers to certify the proceeds allocation for Transition Bonds related projects and the environmental impacts. In the future, with the concept of Green and Low-carbon Finance progressively being embedded into the Bank's overall business, BOC will ensure to enhance information disclosure transparency on a wider range of Green and Low-carbon Finance, including transition finance.

**Reference to the Four Pillars of ICMA Green Bond Principles and Sustainability Bond Guidelines**

For each Transition Bonds issued under this Statement, BOC shall reference the below pillars: I. Use of Proceeds, II. Project Evaluation and Selection, III. Management of Proceeds and IV. Reporting.

**I. Use of Proceeds**

BOC shall select eligible projects in alignment with the industry economic activity classification for climate transition of the *IPSF Common Ground Taxonomy or EU Taxonomy for Sustainable Activities or Climate Bonds Initiative Sector Criteria*. The Bank has taken reference to the sections of the above standards that relate to the transition industry, and identified relevant measurable quantitative indicators as eligibility thresholds (if any). For the following industry categories, BOC has researched and identified the relevant international standards applicable to each industry for reference.

The proceeds raised from Transition Bonds will be used for financing and/or refinancing of eligible projects set out in the below section, including but not limited to supporting acquisition, research and development, manufacturing, construction, equipment operation and/or maintenance, procurement and installation of equipment and related facilities. Proceeds unallocated to eligible projects will be managed in accordance with the approach described in the "Management of Proceeds" section.

**Based on the two principles of "Avoidance of Carbon Lock-in" and "Do No Significant Harm" and the list of "Explicitly Excluded Projects", eligible projects include:**

## 1. Projects in the Public Utility Industry:

| a) Project Categories |
| --- |
| • Production of Electricity from Gas (including but not limited to natural gas)<br>• Cogeneration of Heat/Cool and Power from Gas (including but not limited to natural gas)<br>• Production of Heat/Cool from Gas (including but not limited to natural gas) |
| **b) Eligibility Criteria and Project Examples** |
| • Power generation, cogeneration, heating or cooling using natural gas<br>• Improvement of energy efficiency of natural gas power generation, cogeneration, heating or cooling<br>• Maintenance and technical upgrade of natural gas pipelines to reduce and prevent gas leakage, and to prepare for the integration of using hydrogen or other low-carbon gases (construction and expansion of natural gas pipelines are excluded)<br>• Carbon capture and storage technology for energy systems<br>• Research and development of technologies that can reduce the carbon intensity/energy consumption of natural gas power generation, cogeneration, heating or cooling |
| **c) Internationally Relevant and Applicable Standard(s)** |
| • **EU Taxonomy for Sustainable Activities**<br>With reference to the EU Taxonomy activities "Electricity generation from fossil gaseous fuels" and "High-efficiency co-generation of heat/cool and power from fossil gaseous fuels" |
| **d) Quantitative Indicators and Eligibility Thresholds (including but not limited to)** |
| • **EU Taxonomy for Sustainable Activities**<br>The specific carbon emission thresholds for eligible fossil gaseous fuel related projects are as follows: |

- the life-cycle GHG emissions from the generation of electricity using fossil gaseous fuels are lower than 100g $CO_2e$/kWh

The below criteria apply to qualified fossil gas fuel-related projects for which the construction permit is granted by 31 December 2030:

- the power to be replaced cannot be generated from renewable energy sources; and
- the activity replaces an existing high emitting electricity generation activity that uses solid or liquid fossil fuels; and
- the facility is designed and constructed to use renewable and/or low-carbon gaseous fuels and the switch to full use of renewable and/or low-carbon gaseous fuels takes place by 31 December 2035, with a commitment and verifiable plan approved by the management body of the undertaking; and
- the replacement leads to a reduction in emissions of at least 55% GHG over the lifetime of the newly installed production capacity; and
- For electricity generation projects from fossil gaseous fuels:
    1. direct GHG emissions of the activity are lower than 270g $CO_2e$/kWh of the output energy; or
    2. annual direct GHG emissions of the activity do not exceed an average of 550kg $CO_2e$/kW of the facility's capacity over 20 years; and
    3. the newly installed production capacity does not exceed the capacity of the replaced facility by more than 15%
- For relevant projects that increase energy efficiency of fossil gaseous fuels:
    1. direct GHG emissions of the activity are lower than 270g $CO_2e$/kWh of the output energy; and
    2. the activity achieves primary energy savings of at least 10% compared with the references to separate production of heat and electricity; and
    3. the newly installed production capacity does not exceed the capacity of the replaced facility

If carbon capture, utilization, and storage (CCUS) technology is used for the fossil gaseous fuel projects, transportation and storage must comply with the following standards:

| Components | Standards |
|---|---|
| Transportation | 1. The $CO_2$ transported from the installation where it is captured to the injection point does not lead to $CO_2$ leakages above 0.5 % of the mass of $CO_2$ transported.<br>2. Appropriate leak detection systems are applied and a monitoring plan is in place, with the report verified by an independent third party. |
| Storage | 1. Characterization and assessment of the potential storage complex and surrounding area, or exploration is carried out in order to establish whether the geological formation is suitable for use as a $CO_2$ storage site.<br>2. For operation of underground geological $CO_2$ storage sites, including closure and post-closure obligations:<br>a. Appropriate leakage detection systems are implemented to prevent release during operation;<br>b. A monitoring plan of the injection facilities, the storage complex, and, where appropriate, the surrounding environment is in place, with the regular reports checked by the competent national authority.<br>3. For the exploration and operation of storage sites, the activity complies with ISO 27914:2017 for geological storage of $CO_2$. |

## 2. Projects in Cement Industry:

| a) Project Category |
|---|
| • Manufacture of Cement (ISIC: 2394) |
| **b) Eligibility Criteria and Project Examples** |

- Reduction of the clinker-to-cement ratio (including but not limited to the production of blended cement)
- Furnace heating using natural gas
- Improvement of energy efficiency of clinker production (including but not limited to the use of automation systems to optimize kiln operation and clinker production)
- Recovery and utilization of waste heat energy (including but not limited to power generation using waste heat)
- Research and development of technologies that can reduce the carbon intensity/energy consumption of cement production

**c) Internationally Relevant and Applicable Standard(s)**

- **EU Taxonomy for Sustainable Activities**

  With reference to the EU Taxonomy activity "Manufacture of cement"

- **Climate Bonds Initiative**

  With reference to the Climate Bonds Initiative "Cement Criteria"

**d) Quantitative Indicators and Eligibility Thresholds (including but not limited to)**

- **EU Taxonomy for Sustainable Activities**

  The specific carbon emission thresholds for eligible cement projects are as follows:

| Eligible asset | Specific carbon emission thresholds |
|---|---|
| Grey cement clinker | 0.722 $tCO_2e$ / t product |
| Cement from grey clinker or alternative hydraulic binder | 0.469 $tCO_2e$ / t product |

- **Climate Bonds Initiative**

  i. The relevant cement production facilities are eligible if their emissions intensity, adjusted using the relevant correction factors, are lower than the thresholds of the carbon emissions pathway for cement production facilities over time.

The formula of using the correction factors: multiplying the carbon emissions intensity of the cement production facilities with the correction factor according to the cement class of the cement produced by the relevant facilities.

- The thresholds of the carbon emissions pathway for all cement production facilities over time are as follows:

| Year | Carbon intensity ($t CO_2$ / t cementitious product) | Year | Carbon intensity ($t CO_2$ / t cementitious product) |
|---|---|---|---|
| 2020 | 0.469 | 2036 | 0.253 |
| 2021 | 0.458 | 2037 | 0.234 |
| 2022 | 0.448 | 2038 | 0.216 |
| 2023 | 0.437 | 2039 | 0.197 |
| 2024 | 0.427 | 2040 | 0.179 |
| 2025 | 0.416 | 2041 | 0.161 |
| 2026 | 0.406 | 2042 | 0.143 |
| 2027 | 0.395 | 2043 | 0.125 |
| 2028 | 0.384 | 2044 | 0.107 |
| 2029 | 0.374 | 2045 | 0.089 |
| 2030 | 0.363 | 2046 | 0.071 |
| 2031 | 0.345 | 2047 | 0.054 |
| 2032 | 0.326 | 2048 | 0.036 |
| 2033 | 0.308 | 2049 | 0.018 |
| 2034 | 0.289 | 2050 | 0.000 |
| 2035 | 0.271 | | |

- The correction factors for determining the grade of cement production are as follows:

| Cement class (MPa) | Expected emissions ($tCO_2e$ / t cementitious product) | Correction factor |
|---|---|---|
| 32.5 | 0.550 | 1.18 |
| 42.5 | 0.649 | 1.00 |
| 52.5 | 0.748 | 0.87 |

ii. If the cement facilities use biomass, hydrogen, or waste-derived fuels as a fuel source, additional carbon emissions criteria would be required:

- Cement production facilities that use biomass, including residues, energy crops and lignocellulosic biomass, must reach established carbon emissions thresholds, and reduce the risk of indirect land use impact (iLUC).

- The thresholds of carbon emissions for cement production facilities that use biomass as their primary energy source are as follows:

| Biomass related asset type | Thresholds for biofuel/biomass produced/used (primary energy) | Energy efficiency thresholds |
|---|---|---|
| Facilities producing liquid biofuel, solid and gaseous biomass for heating and co-generation | 16.0 $gCO_2e/MJ$ | N/A |
| Facilities producing biofuel for transport | 18.8 $gCO_2e/MJ$ | N/A |
| Heating/cooling, and co-generation facilities using biofuel/biomass | 16.0 $gCO_2e/MJ$ | 80% |

- Cement production facilities that use hydrogen as fuel to produce cement must comply with established carbon emissions thresholds.
- The carbon emission thresholds for using hydrogen as a fuel over time are as follows:

| Carbon emission thresholds for using hydrogen as a fuel | | | |
|---|---|---|---|
| 2023 | 2030 | 2040 | 2050 |
| 3 $tCO_2e$ / $tH_2$ | 1.5 $tCO_2e$ / $tH_2$ | 0.7 $tCO_2e$ / $tH_2$ | 0 $tCO_2e$ / $tH_2$ |

- Cement production facilities that use waste-derived fuels, including municipal solid waste (MSW):
  1. All waste of recycling potential cannot be used as a fuel, and must be removed prior to burning in line with the waste hierarchy; and
  2. MSW will no longer be eligible as a fuel for cement production after 2035.

iii. If the cement production facilities adopt the Carbon Capture Utilisation and Storage (CCUS) technology, additional criteria on $CO_2$ transportation and storage in the below are required:

| Components | Standards |
|---|---|
| Transportation | 1. The $CO_2$ transported from the installation where it is captured to the injection point does not lead to $CO_2$ leakages above 0.5 % of the mass of $CO_2$ transported.<br>2. Appropriate leak detection systems are applied and a monitoring plan is in place, with the report verified by an independent third party. |
| Storage | 1. Characterization and assessment of the potential storage complex and surrounding area, or exploration is carried out in order to establish whether the geological formation is suitable for use as a $CO_2$ storage site.<br>2. For operation of underground geological $CO_2$ storage sites, including closure and post-closure obligations:<br>a. Appropriate leakage detection systems are implemented to prevent release during operation;<br>b. A monitoring plan of the injection facilities, the storage complex, and, where appropriate, the surrounding environment is in place, with the regular reports checked by the competent national authority.<br>3. For the exploration and operation of storage sites, the activity complies with ISO 27914:2017 for geological storage of $CO_2$. |

## 3. Projects in Aluminium Industry:

| a) Project Category |
|---|
| • Manufacture of Aluminium (ISIC: 4240) |
| **b) Eligibility Criteria and Project Examples** |
| • Reduction of carbon emission / energy consumption of aluminium refining and smelting |

- Collection and recycling of scrap aluminium, and utilization of aluminium scrap for aluminium reproduction
- Aluminium manufacturing using natural gas-generated electricity
- Recovery and utilization of waste heat energy
- Research and development of technologies that can reduce carbon intensity/energy consumption of aluminium production

**c) Internationally Relevant and Applicable Standard(s)**

- **EU Taxonomy for Sustainable Activities**

  With reference to the EU Taxonomy activity "Manufacture of aluminium"

**d) Quantitative Indicators and Eligibility Thresholds (including but not limited to)**

- **EU Taxonomy for Sustainable Activities**

  The thresholds for the manufacture of primary aluminium are as follows:

  - Manufacturing activity of primary aluminium complies with two of the following criteria until 2025 and with all of the following criteria after 2025:
    1. The GHG emissions do not exceed 1.484 $tCO_2e$ per ton of aluminium manufactured;
    2. The average carbon intensity for the indirect GHG emissions does not exceed 100g $CO_2e$/kWh;
    3. The electricity consumption for the manufacturing process does not exceed 15.5 MWh/t Al.

## 4. Projects in Steel Industry:

**a) Project Category**

- Manufacture of Iron and Steel (ISIC: 2410/2431)

**b) Eligibility Criteria and Project Examples**

- Reduction of carbon emissions/energy consumption during steel processing (including but not limited to the use of hydrogen and biomass as reducing agents)
- Collection and recycling of scrap iron and steel, and utilization of scrap iron and steel for steel reproduction
- Furnace heating with natural gas (including but not limited to natural gas)
- Recovery and utilization of waste heat energy (including but not limited to recovery and utilization of waste heat energy during sintering and dry quenching)
- Carbon capture and storage technology for the steel industry
- Research and development of technologies that can reduce carbon intensity/energy consumption of steel production

**c) Internationally Relevant and Applicable Standard(s)**

- **Common Ground Taxonomy**

  With reference to the Common Ground Taxonomy section "C1.2 Manufacture of iron and steel"

- **EU Taxonomy for Sustainable Activities**

  With reference to the EU Taxonomy activity "Manufacture of iron and steel"

- **Climate Bonds Initiative**

  With reference to the Climate Bonds Initiative "Steel Criteria"

**d) Quantitative Indicators and Eligibility Thresholds (including but not limited to)**

- **Common Ground Taxonomy / EU Taxonomy for Sustainable Activities**

  The GHG emissions thresholds for different iron and steel manufacturing process steps, after taking relevant measures to reduce the emissions of waste gases from the iron and steel production process, are as follows:

| Eligible asset | Specific criteria |
|---|---|
| i. Hot metal | 1.331 $tCO_2e$ / t product |
| ii. Sintered ore | 0.163 $tCO_2e$ / t product |
| iii. Coke (excluding lignite coke) | 0.144 $tCO_2e$ / t product |
| iv. Iron casting | 0.299 $tCO_2e$ / t product |
| v. Electric Arc Furnace (EAF) high alloy steel | 0.266 $tCO_2e$ / t product |
| vi. Electric Arc Furnace (EAF) carbon steel | 0.209 $tCO_2e$ / t product |

The requirements for using scrap steel as raw material in electric arc furnaces producing high-alloy steel or carbon steel are as follows (based on the output product as the calculation basis) are as follows:

- Proportion of steel scrap input for the production of high-alloy steel ≥ 70%
- Proportion of steel scrap input for the production of carbon steel ≥ 90%

- **Climate Bonds Initiative**

The applicable certification standards for whole existing eligible iron and steel production facilities (operational prior to 2022) are as follows:

| Eligible facilities | Specific criteria |
|---|---|
| Using Electric Arc Furnace (EAF) | • A plan that describes how the use of renewable energy will be increased/introduced in the facility within the term of the bond through different strategies such as:<br>a) Increasing renewable-based captive power generation<br>b) Increasing renewable-based power purchase agreement |
| Production line with a blast furnace (BF) that became operational in 2007 or later | • The investment shall not be for relining; and<br>• A bundle of decarbonisation measures has been / will be implemented at the steel production facility that has / will reduce the facility's carbon emissions intensity (tCO2 / t steel product) between 2022 and 2030 by:<br>o 20% (if the pre-decarbonisation baseline emissions intensity is greater than or equal to 2 $tCO_2$ / t steel product); and by 2030 the carbon emissions intensity of the steel production facility should be below 1.8 $tCO_2$ / t steel product; or<br>o 15% (if the pre-decarbonisation baseline emissions intensity is less than 2 $tCO_2$ / t steel product); and by 2030 the carbon emissions intensity of the steel production facility should be below 1.8 $tCO_2$ / t steel product |

| | |
|---|---|
| Production line with a blast furnace (BF) that became operational prior to 2007 | • The investment shall not be for relining; and<br>• A bundle of decarbonisation measures has been / will be implemented at the steel production facility that have / will reduce the facility's carbon emissions intensity ($tCO_2$ / t steel product) between 2022 and 2030 by 50%; and<br>• By 2030, the carbon emissions intensity of the steel production facility should be below 1.8 $tCO_2$ / t steel product |
| Production line with Direct Reduction Iron (DRI) | • If the steel production plant is fossil gas based:<br>o A bundle of decarbonisation measures has been / will be implemented at the steel production facility that have / will reduce the facility's carbon emissions intensity ($tCO_2$ / t steel product) between 2022 and 2030 by 20%; or<br>• If the steel production plant is coal based:<br>o A bundle of decarbonisation measures has been / will be implemented at the steel production facility that have / will reduce the facility's carbon emissions intensity ($tCO_2$ / t steel product) between 2022 and 2030 by 40% |

The applicable certification standards for eligible new iron and steel production facilities (operational in 2022 or thereafter) are as follows:

| Eligible facilities | Specific criteria |
|---|---|
| BF-BOF production line with integrated CCUS | • CCUS should capture at least 70% of all emission<br>• If the steel production facilities adopt the CCUS technology, additional criteria on $CO_2$ transportation and storage in the below are required: |

<table>
<tr>
<td>Smelting reduction production line with integrated CCUS</td>
<td rowspan="3">
<table>
<tr><th>Components</th><th>Standards</th></tr>
<tr><td>Transportation</td><td>1. The $CO_2$ transported from the installation where it is captured to the injection point does not lead to $CO_2$ leakages above 0.5% of the mass of $CO_2$ transported.<br>2. Appropriate leak detection systems are applied and a monitoring plan is in place, with the report verified by an independent third party.</td></tr>
<tr><td>Storage</td><td>1. Characterization and assessment of the potential storage complex and surrounding area is carried out in order to establish whether the geological formation is suitable for use as a $CO_2$ storage site.<br>2. For operation of underground geological $CO_2$ storage sites, including closure and post-closure obligations:<br>a. Appropriate leakage detection systems are implemented to prevent release during operation;<br>b. A monitoring plan of the injection facilities, the storage complex, and, where appropriate, the surrounding environment is in place, with the regular reports checked by the competent national authority.<br>3. For the exploration and operation of storage sites, the activity complies with ISO 27914:2017 for geological storage of $CO_2$.</td></tr>
</table>
<ul><li>The utilisation of direct $CO_2$ emissions from steel production is only eligible when the $CO_2$ is used for the manufacture of durable products (e.g. construction materials stored in buildings, or recyclable products e.g. PET).</li></ul>
</td>
</tr>
<tr><td>Fossil gas-based DRI-EAF production line with integrated CCUS</td></tr>
<tr><td>Fossil gas-based DRI production facility with integrated CCUS</td></tr>
<tr><td>Scrap based Electric Arc Furnace (EAF)</td><td><ul><li>The facility needs to use 70% of scrap as total annual inputs; or</li><li>The combined scrap and (100%) Hydrogen based DRI should add to at least 70% of the EAF total annual inputs</li></ul></td></tr>
<tr><td>100% Hydrogen-based DRI</td><td rowspan="2"><ul><li>Facilities using hydrogen-based DRI are subject to established carbon emission thresholds. The carbon emission thresholds for using hydrogen as a reducing agent over time are as follows:</li></ul>
<table>
<tr><th colspan="4">Carbon emission thresholds for using hydrogen as a reducing agent</th></tr>
<tr><th>2023</th><th>2030</th><th>2040</th><th>2050</th></tr>
<tr><td>3 $tCO_2e$ / $tH_2$</td><td>1.5 $tCO_2e$ / $tH_2$</td><td>0.7 $tCO_2e$ / $tH_2$</td><td>0 $tCO_2e$ / $tH_2$</td></tr>
</table>
</td></tr>
<tr><td>100% Hydrogen-based DRI-EAF production line</td></tr>
</table>

| | | |
|---|---|---|
| | Electrolysis of iron ore steelmaking production line | • A plan that describes how the use of renewable energy will be increased/introduced in the facility within the term of the bond through different strategies such as:<br>a) Increasing renewable-based captive power generation<br>b) Increasing renewable-based power purchase agreement<br>• The plan shall be provided with evidence of the strategies that will be implemented. Progress of the implementation plan to be assessed every 36 months. |

## 5. Projects in Basic Chemicals Manufacturing Industry:

| **a) Project Category** |
|---|
| • Manufacture of Basic Chemicals (ISIC: 2011) |
| **b) Eligibility Criteria and Project Examples** |
| • Basic chemicals manufacturing using natural gas<br>• Equipment maintenance and technological upgrades to improve raw material management and reduce gas leakage<br>• Use lower carbon and clean technologies and methods to produce basic chemicals (including but not limited to renewable electrolysis, biomass gasification)<br>• Research and development of technologies that can reduce the carbon intensity/energy consumption of basic chemicals manufacturing |
| **c) Internationally Relevant and Applicable Standard(s)** |

- **Common Ground Taxonomy**

  With reference to the Common Ground Taxonomy section "C1.1 Manufacture of organic basic chemical"

- **EU Taxonomy for Sustainable Activities**

  With reference to the EU Taxonomy activity "Manufacture of organic basic chemicals" , "Manufacture of anhydrous ammonia", "Manufacture of nitric acid", "Manufacture of chlorine", "Manufacture of carbon black", and "Manufacture of soda ash"

- **Climate Bonds Initiative**

  With reference to the Climate Bonds Initiative "Basic Chemicals Criteria"

**d) Quantitative Indicators and Eligibility Thresholds (including but not limited to)**

- **Common Ground Taxonomy / EU Taxonomy for Sustainable Activities**

  The GHG emissions thresholds for the organic basic chemical production processes are as follows:

| Eligible asset | Specific carbon emission reduction criteria |
|---|---|
| High Value Chemicals (HVC) | 0.693 $tCO_2e$ / t of HVC |
| Aromatics | 0.0072 $tCO_2e$ / t of complex weighted throughput |
| Vinyl Chloride | 0.171 $tCO_2e$ / t of vinyl chloride |
| Styrene | 0.419 $tCO_2e$ / t of styrene |
| Ethylene Oxide/ Ethylene Glycols | 0.314 $tCO_2e$ / t of ethylene oxide/glycol |
| Adipic Acid | 0.32 $tCO_2e$ / t of adipic acid |

- **EU Taxonomy for Sustainable Activities**

  The standard thresholds for the inorganic basic chemical production processes are as follows:

| Eligible asset | Specific criteria |
|---|---|
| Anhydrous Ammonia | • Ammonia is produced from hydrogen that complies with the technical screening criteria set out under "Manufacturing of hydrogen" (i.e. Hydrogen of lifecycle GHG emissions lower than 3 $tCO_2e/tH_2$); or<br>• Ammonia is recovered from waste water. |
| Nitric Acid | • GHG emissions from the manufacture of nitric acid are lower than 0.038 $tCO_2e$ per tonne of nitric acid. |

| | |
|---|---|
| Chlorine | • Electricity consumption for electrolysis and chlorine treatment is equal or lower than 2.45 MWh per tonne of chlorine; and<br>• Average lifecycle GHG emissions of the electricity used for chlorine production is at or lower than 100g $CO_2e$/kWh. |
| Carbon Black | • GHG emissions from the carbon black production processes are lower than 1.141 $tCO_2e$ per tonne of product. |
| Soda Ash | • GHG emissions from the soda ash production processes are lower than 0.789 $tCO_2e$ per tonne of product. |

- **Climate Bonds Initiative**

The production facility should meet the basic chemical-specific carbon and energy intensity thresholds. In addition, the energy source should not be coal, coal derivatives or biomass. The feedstock should not be coal or coal derivatives. The thresholds for the basic chemical production processes are as follows:

| Asset Type | Specific criteria | | | | Criteria applicable in all years |
|---|---|---|---|---|---|
| | 2022 | 2030 | 2040 | 2050 | |
| Ammonia | <3 t $CO_2e$/t $H_2$, for the life cycle emissions of hydrogen used as feedstock; or ammonia is recovered from wastewater | 1.67 t $CO_2e$/t $H_2$, for the life cycle emissions of hydrogen used as feedstock; or ammonia is recovered from wastewater | 1.0 t $CO_2e$/t $H_2$, for the life cycle emissions of hydrogen used as feedstock; or ammonia is recovered from wastewater | 0.6 t $CO_2e$/t $H_2$, for the life cycle emissions of hydrogen used as feedstock; or ammonia is recovered from wastewater | $CO_2$ from ammonia production should not be used for urea production. |
| Nitric Acid | 0.038 t $CO_2e$/t nitric acid | 0.021 t $CO_2e$/t nitric acid | 0.011 t $CO_2e$/t nitric acid | 0.007 t $CO_2e$/t nitric acid | Use electricity that meets the most up to date Climate Bonds criteria for electricity grids. |
| Chlorine | 2.45 MWh electricity/t chlorine | 1.85 MWh electricity/t chlorine | Uses only electricity produced from renewable sources | Uses only electricity produced from renewable sources | Implement one of the following alternatives:<br>a. Renewable-based captive power generation<br>b. Renewable-based power purchase agreement |
| Carbon Black | 1.141 t $CO_2e$/t carbon black | 0.63 t $CO_2e$/t carbon black | 0.34 t $CO_2e$/t carbon black | 0.20 t $CO_2e$/t carbon black | N/A |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Disodium Carbonate/ Soda Ash | 0.789 t $CO_2e$/t disodium carbonate/ soda ash | 0.44 t $CO_2e$/t disodium carbonate/ soda ash | 0.23 t $CO_2e$/t disodium carbonate/ soda ash | 0.14 t $CO_2e$/t disodium carbonate/ soda ash | Implement one of the following alternatives:<br>a. Renewable-based captive power generation<br>b. Renewable-based power purchase agreement |
| | High Value Chemicals (ethylene, propylene, butadiene) | 0.51 t $CO_2e$/t high value chemical | 0.28 t $CO_2e$/t high value chemical | 0.15 t $CO_2e$/t high value chemical | 0.09 t $CO_2e$/t high value chemical | N/A |
| | Aromatics BTX (benzene, xylene and toluene) | 0.0072 t $CO_2e$/t aromatics BTX | 0.0040 t $CO_2e$/t aromatics BTX | 0.0021 t $CO_2e$/t aromatics BTX | 0.0012 t $CO_2e$/t aromatics BTX | N/A |
| | Methanol | <3 t $CO_2e$/t $H_2$, for the life cycle emissions of hydrogen used as feedstock | 1.67 t $CO_2e$/t $H_2$ for the life cycle emissions of hydrogen used as feedstock | 1.0 t $CO_2e$/t $H_2$ for the life cycle emissions of hydrogen used as feedstock | 0.6 t $CO_2e$/t $H_2$ for the life cycle emissions of hydrogen used as feedstock | N/A |

Note: The locations of the above natural gas related eligible projects are limited to countries and regions where natural gas is currently considered as a part of the local energy transition trajectory in International Energy Agency's Sustainable Development Scenario, such as China.

## The Principle of "Avoidance of Carbon Lock-in"

Along with the global progression in transition towards low-carbon or zero-carbon, BOC will closely follow the latest transition standards and policy guidelines towards low-carbon or zero-carbon in each country and region, regularly evaluate the local threshold selection criteria for projects, and phase out ineligible or out-of-dated transition projects to avoid the proceeds raised from Transition Bonds "locked-in" such projects. By referring to the decarbonization pathway of the countries or regions where the relevant projects are located, and actively responding to the development and deployment of decarbonization technologies, BOC strives to fund projects which ultimately contribute to achieving carbon neutrality target.

**The Principle of "Do No Significant Harm"**

In addition to making substantial contributions to climate change mitigation and adaptation, BOC will apply the principle of "Do No Significant Harm", namely, to do no significant harm to other important environmental goals such as water and marine resources, pollution prevention and control, biodiversity, and meet the social safeguard requirements set by local laws and regulations of the countries or regions where the relevant projects are located. Therefore, under the premise of meeting the threshold of the aforementioned project categories, each project shall obtain, for instance, feasibility study report and approval, environmental impact assessment report and approval, energy conservation assessment report, soil and water conservation report, or other compliance documents, in order to meet the requirements for eligible projects.

**Explicitly Excluded Projects:**

- Coal power generation related projects, including clean coal power generation or other higher efficiency coal plant technologies (e.g. subcritical or supercritical to ultra-supercritical technology for coal plants)
- Biofuels, biogas or biomass which utilize food crops as sources
- Nuclear related projects
- Mining and quarrying related projects
- Luxury services or goods related projects, such as clubhouse operation
- Alcoholic beverages related projects
- Gambling and predatory lending enterprises related projects
- Tobacco and tobacco-related products related projects
- Weapons and ammunitions related projects

## II. Project Evaluation and Selection

BOC shall follow the procedures below to evaluate and select the eligible projects:

### 1. Preliminary Screening

Based on the project compliance documents (such as feasibility study report and approval, environmental impact assessment report and approval), and referring to criteria and standards of eligible project categories defined in the "Use of Proceeds" section, BOC's domestic and overseas branches shall conduct preliminary screening of eligible projects, to form the list of nominated projects and submit to the Headquarter for further review.

### 2. Review and Approval

BOC's Headquarter shall review each of the nominated projects, and then submit to professional third party agencies for independent assessment. Approval will be granted to nominated projects certified by the professional third party agencies. The approved projects will form the Eligible Project List.

### 3. Update and Maintenance

BOC's Headquarter shall review the Eligible Project List on a regular basis and determine if any changes are necessary (for example, if a project has become ineligible due to amortization, prepayment, sale or other reasons). If such changes are necessary, the Headquarter shall organize domestic and overseas branches to nominate new projects and approve the eligible ones to replace projects that have become ineligible due to amortization, prepayment, sale or other reasons.

## III. Management of Proceeds

BOC will allocate the proceeds of the Transition Bonds to the eligible projects across various domestic and overseas markets via BOC's global network. BOC has established an effective mechanism to manage the proceeds, ensuring that the proceeds raised from Transition Bonds will be corresponded to the eligible projects.

### 1. Planning for Use of Proceeds

Prior to the issuance of Transition Bonds, BOC shall develop the preliminary Eligible Project List as per "Project Evaluation and Selection" section in the Statement, to ensure that proceeds raised from Transition Bonds can be allocated to the eligible projects.

### 2. Management of Separate Ledger

BOC shall record the source and allocation of proceeds in a separate ledger management system to ensure that the proceeds of the Transition Bonds are properly managed and used. The ledger system shall contain information including but not limited to: transaction information (including but not limited to issue amount, coupon, issue date and maturity date, etc.) and proceeds allocation information (including but not limited to project name, borrower description, project category, balance, release date, repayment date, exchange rate, interest rate of the loan, etc.). BOC will review and update the ledger on time. Any proceeds allocated to the projects that have been amortized, prepaid, sold or otherwise become ineligible due to other reasons shall be reallocated to newly nominated and approved projects.

### 3. Use of Unallocated Proceeds

Unallocated proceeds shall not be invested in greenhouse gas intensive, highly polluting, energy intensive projects nor projects with negative social impacts (including but not limited to "Explicitly Excluded Projects"). The unallocated proceeds could be temporarily invested in Green or Transition Bonds issued by non-financial institutions in domestic or international capital markets, and in money market instruments with good credit ratings and market liquidity, or kept in cash until they are allocated to eligible projects.

## IV. Reporting

BOC will make disclosure in relation to the eligible projects' proceeds allocation and environmental impacts on an annual basis on the official website (http://www.boc.cn/en/investor/ir10/) when the Transition Bonds remain outstanding. BOC is committed to ensuring the transparency of information disclosure in accordance with the best practices recommended by the ICMA. The contents to be disclosed annually include but not limited to:

1. Annual report of the Transition bonds, where the content includes but not limited to the following proceeds allocation and environmental impacts information:
   - A brief description of the eligible projects where the proceeds were allocated, and breakdown in terms of amount and percentage allocated to each of the categories
   - The unallocated proceeds and how they are invested temporarily
   - Appropriate case information of the selected eligible projects
   - The environmental benefits of each category of the eligible projects where the proceeds were allocated

2. An attestation report for the annual report issued by a qualified third party
3. An attestation report for the use of proceeds issued by a qualified third party

Bank of China Limited

October 2023