

# Sustainalytics Second Party Opinion

## Handelsbanken's Green Bond Framework

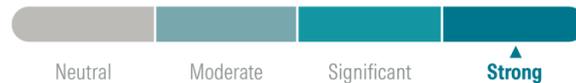
07 August 2025

Framework owner and location:  
Svenska Handelsbanken AB (publ)  
Stockholm, Sweden

Sector:  
Financial Services

### Overall Assessment

Sustainability Contribution



Principles Alignment

**Aligned**  
Green Bond Principles 2025

### Contribution to SDGs



### Assessment Summary

Svenska Handelsbanken AB has developed the Handelsbanken's Green Bond Framework dated August 2025 under which it intends to issue green bonds to fund projects primarily located in Sweden, Norway, the Netherlands and the UK, in eight environmental categories.

We have assessed the overall Sustainability Contribution of the Framework as **Strong**, based on the average Sustainability Contribution of the Framework's eight use of proceeds categories. As per our methodology, we have applied equal weighting across categories.

Handelsbanken intends to finance environmental expenditures in Green Buildings, Environmentally Sustainable Management of Living Natural Resources and Land Use, Clean Transportation, Climate Change Adaptation, Energy Efficiency, Pollution Prevention and Control, Renewable Energy, Sustainable Water and Wastewater Management. Under Green Buildings, the Bank will finance the best energy-performing residential and non-residential buildings in their region. While new buildings financed may use fossil fuels for on-site energy, these investments are expected to significantly support the sector's decarbonization. Handelsbanken may also finance sustainable forestry, biodiversity conservation and regenerative agriculture. Clean transportation financing will focus on zero-emissions vehicles and related infrastructure, as well as bi-mode trains and personal mobility.

Climate adaptation projects will target enhanced resilience in water management, infrastructure, industrial operations and agriculture. Energy efficiency projects target buildings, energy systems and manufacturing processes. The Bank may finance the manufacturing of household appliances and upgrading telecommunications infrastructure. While such projects are not primarily aimed at energy efficiency, they are expected to deliver some efficiency gains. It may also finance the deployment of green hydrogen in low-carbon iron and steel production, supporting the decarbonization of this industry. Pollution prevention and control financing focuses on waste management, waste-to-energy (WtE), and carbon capture, storage and utilization. While the funding may be directed to hazardous waste treatment, plastic recycling and WtE, which have limited environmental benefit, this category can still drive strong impact. Under Renewable Energy, the Bank will finance low-carbon electricity generation and heating solutions, which are critical to decarbonizing energy systems. Additionally, it will finance projects contributing strongly to Sustainable Water and Wastewater Management.

We have assessed the Framework as **Aligned** with the Green Bond Principles 2025.

### Contacts:

Siga Wu  
Senior Analyst  
siga.wu@morningstar.com

Siina Matihaldi  
Senior Analyst  
siina.matihaldi@morningstar.com

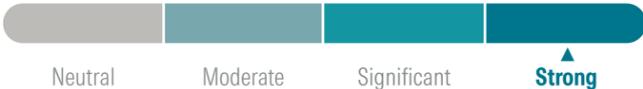
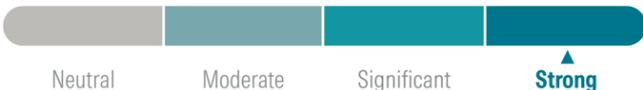
Natalia Gotishan  
Senior Analyst  
natalia.gotishan@morningstar.com

Camilla Bovati  
Analyst  
camilla.bovati@morningstar.com

Shreeya Garg  
EMEA Regional Lead  
shreeya.garg@morningstar.com

## Breakdown per Use of Proceeds Category

We have assessed the overall Sustainability Contribution of the Framework as **Strong**, based on the average Sustainability Contribution of the Framework's use of proceeds categories. As per our methodology, we have distributed weight equally across categories, as shown below.

Category	Sustainability Contribution Level	Weight
Green Buildings	 <p>Neutral    Moderate    <b>Significant</b>    Strong</p>	12.5%
Environmentally Sustainable Management of Living Natural Resources and Land Use	 <p>Neutral    Moderate    Significant    <b>Strong</b></p>	12.5%
Clean Transportation	 <p>Neutral    Moderate    Significant    <b>Strong</b></p>	12.5%
Climate Change Adaptation	 <p>Neutral    Moderate    Significant    <b>Strong</b></p>	12.5%
Energy Efficiency	 <p>Neutral    Moderate    Significant    <b>Strong</b></p>	12.5%
Pollution Prevention and Control	 <p>Neutral    Moderate    Significant    <b>Strong</b></p>	12.5%
Renewable Energy	 <p>Neutral    Moderate    Significant    <b>Strong</b></p>	12.5%
Sustainable Water and Wastewater Management	 <p>Neutral    Moderate    Significant    <b>Strong</b></p>	12.5%

## Issuer Overview & Sustainability Strategy

Svenska Handelsbanken AB is a universal bank headquartered in Stockholm, Sweden. It provides a broad range of services, including corporate and commercial banking, investment banking and trading. The Bank serves private individuals, corporates clients and institutional customers in Sweden, Norway, the Netherlands, the UK, Luxembourg and the US. Founded in 1871, Handelsbanken has total assets under management exceeding SEK 1.192 billion (EUR 100.8 million) and employed 11,976 people as of December 2024.<sup>1</sup>

The Bank's sustainability strategy focuses on supporting clients in the transition to a low-carbon economy through its lending, asset management and payment services. This includes the provision of green loans, sustainability-linked loans, green mortgages, and Articles 8 and 9 funds.<sup>2</sup> Handelsbanken also offers advisory services to corporate clients, SMEs and private customers on environmental and social topics, including climate, environment, biodiversity, human rights and inclusivity. As part of this effort, the Bank has developed an engagement strategy that prioritizes biodiversity and is committed to conducting biodiversity engagement dialogues annually with selected portfolio companies to help reduce their impact on ecosystems. In addition, Handelsbanken conducts scenario analysis to assess the alignment of its portfolio with the Paris Agreement's 1.5°C goal and to identify associated climate transition risks and opportunities. To manage the environmental impact of its own operations, the Bank has set a target to reduce its absolute scope 1 and 2 emissions by 50% by 2030 compared to 2021 levels. Handelsbanken aims to: i) maintain 100% sourcing of renewable electricity; and ii) reduce energy consumption per square metre in its headquarters and internal departments by an average of at least 2.5% per year between 2023 and 2030.<sup>3</sup>

Handelsbanken's Board and CEO set the strategic direction for its sustainability initiatives.<sup>4</sup> The Board reviews sustainability policies annually, while the CEO issues supplementary guidelines. The Head of Group Sustainability is responsible for overseeing the implementation of sustainability initiatives, ensuring adherence to internal policies and external standards, and reports quarterly to the Board and CEO. At the operational level, team managers are responsible for identifying and managing relevant sustainability risks within their respective areas. The Bank's Sustainability Committee, chaired by the Head of Group Sustainability and composed of senior representatives, supports the managers' work by co-ordinating efforts, addressing sustainability-related risks and identifying opportunities.<sup>5</sup>

Handelsbanken publishes a sustainability report annually as part of an integrated report. This report includes information on the Bank's governance, sustainability strategy, ESG impacts, risks and opportunities, and environmental metrics and targets. It is aligned with the European Sustainability Reporting Standards and includes disclosures on financing in accordance with the EU Taxonomy.

<sup>1</sup> Handelsbanken, "Annual and Sustainability Report", (2024), at: <https://www.handelsbanken.com/tron/xqpu/info/contents/v1/document/72-263272>

<sup>2</sup> Article 8 financial products promote environmental or social characteristics, whereas Article 9 financial products make sustainable investments as their core objective. European Parliament, "Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019" on sustainability-related disclosures in the financial services sector", (2019), at: <https://eur-lex.europa.eu/eli/reg/2019/2088/oj/eng>

<sup>3</sup> Handelsbanken, "Annual and Sustainability Report", (2024), at: <https://www.handelsbanken.com/tron/xqpu/info/contents/v1/document/72-263272>

<sup>4</sup> Handelsbanken, "Sustainability Governance", at: <https://www.handelsbanken.com/en/sustainability/sustainability-governance>

<sup>5</sup> Handelsbanken, "Annual and Sustainability Report", (2024), at: <https://www.handelsbanken.com/tron/xqpu/info/contents/v1/document/72-263272>

## Principles Alignment

We have assessed the Bank's Green Bond Framework as follows:

### Green Bond Principles 2025 - **Aligned**

Svenska Handelsbanken AB and its wholly owned subsidiary, Stadshypotek AB, intend to issue green bonds, including senior preferred bonds, senior non-preferred bonds, subordinated bonds, and covered bonds under the Framework.

Covered bonds will be limited to covered green standard bonds, as defined by ICMA in the Green Bond Principles 2025. For any covered green standard bond, the net proceeds of the offering will be applied exclusively to finance or refinance eligible projects. The Bank has further confirmed that there will be no double counting of eligible projects under a covered green standard bond with other outstanding green labelled financing instruments.

Handelsbanken will ensure the alignment of all issuances by Stadshypotek AB with the four core components of the Principles, as defined in the Framework.

### Principles Alignment Detailed Evaluation

#### Use of Proceeds

#### **Aligned**

##### *Alignment with core requirements*

- ▶ The Framework describes eligibility criteria appropriately.
- ▶ All expenditures are expected to provide clear environmental benefits.

#### Project Evaluation and Selection

#### **Aligned**

##### *Alignment with core requirements*

- ▶ The Framework describes a governance process for the evaluation and selection of eligible projects.
- ▶ The Framework communicates the environmental or social sustainability objectives of eligible projects.
- ▶ The Framework describes a process to identify and manage perceived environmental and social risks associated with eligible projects.

##### *Additional considerations*

- ▶ The Bank has committed to the following practices, which go beyond the core requirements:
  - ▶ The Bank describes how eligible projects support its overarching sustainability objectives and strategy.
  - ▶ The Bank states that it intends to align projects under the Framework with the EU Taxonomy's technical screening criteria for substantial contribution in the Climate Delegated Act (December 2021) and Environmental Delegated Act (June 2023) on a best effort basis.
  - ▶ The Bank indicates the SDGs to which it expects to contribute through eligible projects.

- ▶ The Framework excludes investments directly related to activities associated with exploration, production or transportation of fossil fuels, nuclear energy generation, research or development within armament and defence, potentially environmentally negative resource extraction, such as rare earth elements or fossil fuels, gambling, alcohol, adult entertainment or tobacco.

## Management of Proceeds

### Aligned

#### *Alignment with core requirements*

- ▶ The Framework describes a governance structure for the management of proceeds.
- ▶ The Framework describes the processes and systems that will be used to track the proceeds.
- ▶ The Framework describes the intended temporary placement for the balance of unallocated proceeds.

#### *Additional considerations*

- ▶ The Bank will manage the proceeds from the financing using a portfolio approach.
- ▶ The Bank has committed to the following practices, which go beyond the core requirements:
  - ▶ Pending full allocation of the proceeds, funds may be temporarily allocated in line with the Bank's internal sustainability policy, climate risk policy and the requirements of the liquidity reserve in government bonds, taking into account the Framework's exclusion criteria.
  - ▶ The Bank will obtain external verification for its allocation of proceeds on an annual basis.

## Reporting

### Aligned

#### *Alignment with core requirements*

- ▶ The Bank will provide an annual allocation report until there are no more bonds outstanding and in case of material changes.

#### *Additional considerations*

- ▶ The Bank has committed to the following practices, which go beyond the core requirements:
  - ▶ The Bank will publish a Green Bond Investor Report containing category-level allocation and impact information on its website.
  - ▶ The Bank will report on the qualitative and quantitative impacts of projects using relevant metrics, where feasible.
  - ▶ The Framework indicates at least one impact metric for each category.
  - ▶ The Bank intends to align its impact reporting with the standards set out in i) the ICMA Harmonized Framework for Impact Reporting; and ii) the Nordic Public Sector Issuers' Position Paper on Green Bonds Impact Reporting<sup>6</sup> on a best effort basis.

<sup>6</sup> Nordic Public Sector Issuers, "Position Paper on Green Bonds Impact Reporting", (2024), at: [https://www.kuntarahoitus.fi/wp-content/uploads/2024/05/NPSI\\_Position\\_Paper\\_2024.pdf](https://www.kuntarahoitus.fi/wp-content/uploads/2024/05/NPSI_Position_Paper_2024.pdf)

## Sustainability Contribution

Handelsbanken intends to use the proceeds from instruments issued under the Framework to finance and refinance loans expected to lead to environmental benefits primarily in Sweden, Norway, the UK and the Netherlands.

We have assessed the overall Sustainability Contribution of the Framework as **Strong** based on the average Sustainability Contribution of the Framework’s use of proceeds categories. As per our methodology, we have distributed weight equally across categories.

Sustainability Contribution



### Sustainability Contribution per Use of Proceeds Category

Green buildings



We have assessed the Sustainability Contribution of the Green Buildings category as **Significant**.

Existing residential and non-residential buildings financed under the Framework will belong to the top 15% of the national building stock, while new buildings will need to have a Primary Energy Demand (PED) at least 10% lower than the local nearly zero-energy building (NZEB) requirements or achieve levels of globally recognized certifications, placing them among the most energy efficient in their region. Although the eligibility criteria do not require the buildings to be fossil fuel-free in relation to energy use, these expenditures, alongside the renovation of buildings targeting a 30% reduction in PED, will significantly contribute to the decarbonization of the buildings sector.

#### Category Expenditures

Expenditure	Description
Construction of green buildings	<ul style="list-style-type: none"> <li>▶ Construction of new residential and non-residential buildings built after 31 December 2020 that either: i) have a PED at least 10% lower than the local requirements for nearly zero-energy buildings (NZEB)<sup>7</sup> or, for buildings in the UK, have an energy performance certificate<sup>8</sup> (EPC) A; or ii) have or intend to achieve the following minimum green building certification levels: BREEAM<sup>9</sup> Excellent; LEED<sup>10</sup> Gold; Nordic Swan Ecolabel (Svanen);<sup>11</sup> or Miljöbyggnad<sup>12</sup> Silver.</li> <li>▶ Buildings dedicated to storage, transportation and exploration of fossil fuels are excluded.</li> </ul>
Acquisition and ownership of existing green buildings	<ul style="list-style-type: none"> <li>▶ Acquisition and ownership of residential and non-residential buildings built before 31 December 2020 with EPC A or belonging to the top 15% of the national or regional building stock in terms of PED. The top 15% will be determined using an external benchmark.</li> </ul>

<sup>7</sup> NZEB: [https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficient-buildings/nearly-zero-energy-and-zero-emission-buildings\\_en](https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficient-buildings/nearly-zero-energy-and-zero-emission-buildings_en)

<sup>8</sup> EPC: <https://www.gov.uk/energy-performance-certificate-commercial-property>

<sup>9</sup> BREEAM: <https://breeam.com/about/how-breeam-works>

<sup>10</sup> LEED: <https://www.usgbc.org/leed>

<sup>11</sup> Nordic Swan Ecolabel: <https://www.nordic-swan-ecolabel.org/official-nordic-ecolabel/>

<sup>12</sup> Miljöbyggnad: <https://www.sgbc.se/certifiering/miljobyggnad/>

---

Renovation of existing green buildings	<ul style="list-style-type: none"> <li>▶ Buildings dedicated to storage, transportation and exploration of fossil fuels are excluded.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>▶ Renovation expenditures that either: i) result in a PED reduction of at least 30%, compared to the pre-renovation level; or ii) where the building meets the applicable requirements for major renovations, as set in the applicable national and regional building regulations for major renovations implementing Directive 2010/31/EU.<sup>13</sup></li> <li>▶ The 30% PED improvements will be achieved within three years.</li> <li>▶ Financing will be limited to renovation costs, unless a building fulfils the criteria for the acquisition of existing green buildings defined above as a result of the retrofit, in which case the expenditures related to the retrofit and the asset value of the building can be financed.</li> </ul> <hr/>
--	---

### *Analytical Commentary*

Buildings operations accounted for 30% of global final energy consumption and 26% of energy-related GHG emissions in 2022.<sup>14</sup> To reduce emissions in this sector, many countries, including Sweden, Norway, the UK and the Netherlands, are strengthening building energy codes and promoting energy-efficient systems and renewable technologies in the built environment. However, decarbonization in the sector must accelerate to achieve net zero emissions by 2050. As of 2020, only 5% of new buildings worldwide were zero carbon-ready, while this share must increase to 100% by 2030 to keep pace with internationally agreed climate goals.<sup>15</sup> Investments in highly energy-efficient and zero emissions-ready buildings are critical to bridging this gap and decarbonizing the buildings sector.

The Framework's eligibility criteria require existing buildings built before 31 December 2020 to either obtain an EPC A or fall within the top 15% of the national or regional building stock in terms of energy performance. Such requirements would position eligible buildings among the most energy efficient in their region. Investments in new buildings constructed after 31 December 2020 must meet strong energy performance standards, such as achieving a PED at least 10% lower than local NZEB requirements or obtaining credible green building certifications at high performance levels, such as BREEAM Excellent, placing the eligible buildings among the best performing in terms of energy efficiency in their region. However, the Framework does not require new buildings constructed after 2024 to be fossil fuel-free in their energy use, which exposes them to a risk of fossil fuel lock-in.

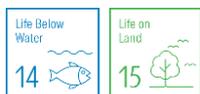
Handelsbanken will also finance building renovations which result in energy savings of at least 30% within three years or meet the requirements for major renovations in the relevant jurisdiction under Directive 2010/31/EU, as implemented in national legislation. Since the requirements for major renovations vary across EU Member States, eligible projects determined by this criterion may not demonstrate a consistent level of energy efficiency improvement. Nevertheless, Handelsbanken's investments are expected to significantly contribute to the decarbonization of the building sector, thereby supporting the broader transition to a low carbon-built environment.

<sup>13</sup> The Directive 2010/31/EU stipulates that the energy performance of the building or the renovated part that is upgraded must meet cost-optimal minimum energy performance requirements of the respective national and regional building regulations.

<sup>14</sup> IEA, "Tracking Buildings", (2023), at: <https://www.iea.org/energy-system/buildings>

<sup>15</sup> IEA, "Technology and Innovation Pathways for Zero-carbon-ready Buildings by 2030", (2022), at: <https://www.iea.org/reports/technology-and-innovation-pathways-for-zero-carbon-ready-buildings-by-2030>

Environmentally Sustainable Management of Living Natural Resources and Land Use



We have assessed the Sustainability Contribution of the Environmentally Sustainable Management of Living Natural Resources and Land Use category as **Strong**.

Handelsbanken may finance sustainable forest management projects certified under the Forest Stewardship Council (FSC) or Programme for the Endorsement of Forest Certification (PEFC), which promote the responsible use and long-term health of forest resources. Eligible projects may also include biodiversity conservation and restoration activities, as well as regenerative agricultural practices on certified farms. While agricultural projects can be implemented on smallholder livestock farms, which inherently have higher negative environmental impacts relative to crop production, such investments will nonetheless support the broader transition toward sustainable food systems. Overall, these expenditures will contribute to ecosystem resilience, biodiversity conservation and sustainable agriculture.

Category Expenditures

Expenditure	Description
Investments in sustainable forestry	<ul style="list-style-type: none"> <li>▶ Sustainable forest management projects certified under FSC<sup>16</sup> or PEFC,<sup>17</sup> including: i) commercial timber production; ii) afforestation and reforestation; iii) conservation forestry; and iv) rehabilitation and restoration of forests.</li> <li>▶ Afforestation and reforestation projects will use tree species well adapted to site conditions.</li> </ul>
Biodiversity conservation and restoration	<ul style="list-style-type: none"> <li>▶ Protection, restoration and conservation of natural resources, ecosystems and species, including: i) wetland restoration to improve natural water storage and increase biodiversity; ii) measures to improve fish migration, such as constructing fish ladders that allow salmon and other migratory species to bypass dams and other waterway barriers; iii) pollinator habitat restoration through planting wildflower meadows and reducing pesticide use; iv) rehabilitation of river and aquatic ecosystems; and v) creation of urban green spaces using trees adapted to site conditions.</li> <li>▶ Conservation projects in habitats vulnerable to biodiversity loss and of high ecological importance, including: i) freshwater ecosystems, such as lakes in Sweden and Norway; ii) marine environments, including the Baltic Sea; and iii) biodiversity conservation initiatives in the UK. All projects in ecologically sensitive areas will undergo an environmental and social impact assessment conducted as part of a government-approved programme or by a credible independent organization, such as Greppa Näringen.<sup>18</sup></li> <li>▶ Regenerative<sup>19</sup> agriculture projects implemented on crop farming and smallholder livestock farms certified under KRAV,<sup>20</sup> Svenskt Sigill,<sup>21</sup> EU Organic<sup>22</sup> or equivalent certifications, including: i) sustainable agricultural</li> </ul>

<sup>16</sup> Forest Stewardship Council: <https://fsc.org/en>

<sup>17</sup> Programme for the Endorsement of Forest Certification: <https://pefc.org/discover-pefc/what-is-pefc>

<sup>18</sup> Greppa Näringen, "About Greppa Näringen", at: <https://greppa.nu/om-greppa-naringen>

<sup>19</sup> Handelsbanken uses the definition of regenerative agriculture provided by the European Economic and Social Committee. "Regenerative agriculture as a target towards enhancing sustainable food production, supporting climate and biodiversity objectives", (2025), at: <https://www.eesc.europa.eu/en/our-work/opinions-information-reports/opinions/regenerative-agriculture-target-towards-enhancing-sustainable-food-production-supporting-climate-and-biodiversity>

<sup>20</sup> KRAV: <https://www.krav.se/en/standards/>

<sup>21</sup> Sigill: <https://www.sigill.se/>

<sup>22</sup> EU Organic: [https://agriculture.ec.europa.eu/farming/organic-farming/organic-logo\\_en](https://agriculture.ec.europa.eu/farming/organic-farming/organic-logo_en)

management techniques and technologies; and ii) agroforestry practices and integrated cropland-livestock forestry systems (ICLFSs) certified with FSC or PEFC.

- ▶ Expenditures exclude livestock management projects at industrial-scale livestock facilities, and the purchase or distribution of inorganic or synthetic fertilizers, herbicides or pesticides.

---

### *Analytical Commentary*

Global biodiversity is rapidly declining due to land-use change, pollution, overexploitation of natural resources, invasive species and climate change. Wildlife populations decreased by 69% between 1970 and 2018, and approximately one million species are threatened with extinction.<sup>23,24</sup> Deforestation persists at a rate of 10 million hectares annually, largely due to conversion of forests for agricultural land and unsustainable logging.<sup>25</sup> Similarly, in Europe, intensive farming and forestry, habitat fragmentation and climate impacts continue to degrade ecosystems.<sup>26</sup> The loss of nature poses growing financial risks, as more than half of the global GDP is reliant on ecosystem services.<sup>27</sup> With food production projected to increase by over 50% by 2050 compared to 2010, pressures on land, resources and ecosystems are expected to further intensify.<sup>28</sup> Achieving the 2030 targets to protect 30% of land and sea and restore 30% of degraded ecosystems, while meeting the demands of a growing global population, will require increased investments in nature protection, sustainable forestry and conservation agriculture.<sup>29,30</sup>

Handelsbanken will finance sustainable forest management projects that are certified by FSC or PEFC, to ensure that forest resources are managed responsibly to maintain biodiversity, productivity and regeneration capacity. Financed activities related to sustainable timber production, conservation and restoration efforts are particularly important in Sweden, Norway and the UK, where forests are facing pressures from logging, land-use change and historical degradation.<sup>31,32,33</sup> In addition, the use of tree species that are well adapted to local conditions in afforestation and reforestation projects will improve the stability and resilience of forest ecosystems. These investments are expected to support the development of resilient forestry systems and promote the sustainable use of forest resources.

The Bank will also finance broader biodiversity and ecosystem restoration efforts across terrestrial, freshwater and marine environments. These projects may target habitats that are particularly sensitive to biodiversity loss, possess high conservation value, or are classified as ecologically vulnerable, such as those in the Baltic Sea. These projects will be subject to environmental and

<sup>23</sup> IPBES, "2019 Global Assessment Report on Biodiversity and Ecosystem Services", (2019) at: [https://files.ipbes.net/ipbes-web-prod-public-files/inline/files/ipbes\\_global\\_assessment\\_report\\_summary\\_for\\_policymakers.pdf](https://files.ipbes.net/ipbes-web-prod-public-files/inline/files/ipbes_global_assessment_report_summary_for_policymakers.pdf)

<sup>24</sup> WWF, "WWF's Living Planet Report: Devastating 69% drop in wildlife populations since 1970", (2022), at: <https://www.wwf.eu/?7780966/WWF-Living-Planet-Report-Devastating-69-drop-in-wildlife-populations-since-1970>

<sup>25</sup> FAO, "The state of the World's Forest", (2020), at: <https://www.fao.org/state-of-forests/en/>

<sup>26</sup> European Environment Agency, "New EEA briefing: "Water savings in key economic sectors can help improve EU's water resilience", at: <https://www.eea.europa.eu/en>

<sup>27</sup> World Economic Forum, "Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy", (2020), at:

[https://www3.weforum.org/docs/WEF\\_New\\_Nature\\_Economy\\_Report\\_2020.pdf](https://www3.weforum.org/docs/WEF_New_Nature_Economy_Report_2020.pdf)

<sup>28</sup> World Resources Institute, "Executive Summary (Synthesis)", at: <https://research.wri.org/wrr-food/executive-summary-synthesis>

<sup>29</sup> Convention on Biological Diversity, "Kunming-Montreal Global Biodiversity Framework: 2030 Targets (with Guidance Notes), at: <https://www.cbd.int/gbf/targets>

<sup>30</sup> FAO, "Conservation Agriculture", at: <http://www.fao.org/conservation-agriculture/en/>

<sup>31</sup> Lund University, "Study uncovers widespread and ongoing clearcutting of Swedish old forests", (2022), at: <https://www.lunduniversity.lu.se/article/study-uncovers-widespread-and-ongoing-clearcutting-swedish-old-forests>

<sup>32</sup> Økland, T., Halvorsen, R., Lange, H., et al. "Climate change drives substantial decline of understorey species richness and abundance in Norway spruce forests during 32 years of vegetation monitoring", (2023), at: <https://onlinelibrary.wiley.com/doi/full/10.1111/jvs.13191>

<sup>33</sup> UK Forestry Commission, "Why woodland management is key to nature recovery", (2023), at: <https://forestrycommission.blog.gov.uk/2023/12/08/why-woodland-management-is-key-to-nature-recovery/>

social impact assessments, conducted either as part of a government-approved programme or by a credible independent body to mitigate potential negative impacts and facilitate effective restoration efforts. Overall, these expenditures will contribute substantially to the protection of biodiversity and restoration of degraded ecosystems.

The Framework also allows the financing of regenerative agricultural techniques and technologies, such as intercropping, no-till or conservation tillage systems and drip irrigation, as well as agroforestry and ICLF systems, which improve soil health, increase water retention and soil carbon storage. These practices will be implemented on farms that are certified, or are expected to be certified, under credible organic farming standards such as EU Organic and KRAV, which promote sustainable farming practices. In contrast, the Svenskt Sigill certification does not ensure the same level of sustainability, as it does not prohibit the use of inorganic fertilizers and pesticides, nor does it require a defined cut-off date for land conversion. As a result, land recently converted from natural ecosystems or high conservation value areas may still qualify for certification under this standard. Moreover, the Framework allows the financing of practices on farms with other equivalent certifications, which may encompass standards with less stringent sustainability requirements.

For agroforestry and ICLFS systems, the Framework also requires obtaining FSC or PEFC certification, which will ensure that the forest areas within these systems are managed responsibly. However, such practices may also involve smallholder livestock farms. Livestock farming is inherently associated with high environmental footprint, including methane emissions, land degradation and biodiversity loss, along with intensive resource demands for water, land and feed. Nonetheless, these investments are expected to promote more integrated, sustainable land use practices and reduce the vulnerability of smallholder farmers to environmental shocks. Overall, the expenditures in regenerative agricultural projects will support the transition to more sustainable agricultural systems, in line with broader climate and biodiversity goals.

Collectively, investments under this category are expected to make a strong contribution to enhancing ecosystem resilience, supporting global biodiversity conservation and advancing sustainable agricultural practices.

Clean Transportation



We have assessed the Sustainability Contribution of the Clean Transportation category as **Strong**.

Handelsbanken intends to finance zero emission vehicles across road, rail and water transport, as well as the repair and upgrade of these assets to extend their operational life. Investments may also include infrastructure projects enabling zero emission transport and active mobility, such as pedestrian and cycling networks. The Framework allows for the financing of bi-mode trains that can operate on electric power and switch to diesel on non-electrified tracks, which may delay the full electrification of rail transport and pose a risk of fossil fuel lock-in. Nonetheless, investments under this category will collectively make a strong contribution to the transition to zero emission transport systems.

Category Expenditures

Expenditure	Description
Purchase, operation,	► Zero direct emissions road transport, such as passenger cars, motorbikes, light commercial vehicles, passenger public transport and freight trucks.

maintenance, manufacture, repair, upgrades and leasing of zero emission and low carbon transport	<ul style="list-style-type: none"> <li>▶ Passenger and freight rail transport, including: i) zero-emission trains, coaches and wagons; and ii) bi-mode trains with zero tailpipe CO<sub>2</sub> emissions when operated on a track with necessary electric infrastructure and use a conventional engine where such infrastructure is not available.</li> <li>▶ Passenger inland, sea and coastal vessels with zero direct emissions.</li> <li>▶ Personal mobility devices such as bicycles.</li> <li>▶ Expenditures exclude the transport of fossil fuels.</li> </ul>
Construction, modernization, operation and maintenance of infrastructure supporting low carbon transportation	<ul style="list-style-type: none"> <li>▶ Infrastructure enabling zero direct emissions road vehicles, such as electric charging stations, electricity grid connection upgrades, hydrogen fuelling stations and electric road systems.</li> <li>▶ Infrastructure for zero emission rail transport, such as electrified trackside systems and associated subsystems.</li> <li>▶ Infrastructure for zero emission urban and suburban public passenger transport, including bus lanes and bus stations.</li> <li>▶ Infrastructure supporting zero emission water transport, such as electric charging stations or hydrogen fuelling facilities for ships or other vessels.</li> <li>▶ Expenditures exclude infrastructure dedicated to the transport or storage of fossil fuels, construction of roads and standalone parking facilities.</li> </ul>
Infrastructure for personal mobility	<ul style="list-style-type: none"> <li>▶ Construction, modernization, operation and maintenance of infrastructure for personal mobility dedicated to pedestrian and cycling facilities.</li> </ul>

### *Analytical Commentary*

The transport sector accounted for 37% of CO<sub>2</sub> emissions from end-use sectors in 2022 and relied on oil products for nearly 91% of its final energy use.<sup>34,35</sup> Road transport was the largest contributor, generating 73% of global transport emissions in 2022, followed by aviation, shipping and rail. To achieve climate neutrality by 2050, emissions from transport must decline by 25% by 2030, which will require scaling up the electrification of vehicles and the use of low emission fuels. With transport volumes projected to double by 2050, investments in zero emission vehicles and related infrastructure are critical to decarbonizing the transport sector.<sup>36</sup>

Handelsbanken may finance zero emission road, rail and water transport, including electric cars, buses and freight trucks, electrified rolling stock, zero emission passenger vessels for inland, coastal and maritime use, and personal mobility devices. The Framework also allows for the financing of bi-mode passenger and freight trains that run on electricity and use a conventional engine where electrified infrastructure is not available. Bi-mode trains may contribute to fossil fuel lock-in, thereby delaying the full electrification of the transport sector. As a result, their contribution is not as strong as that of fully electric alternatives.

Investments under the Framework will also be directed to infrastructure that enables personal mobility and zero emissions transport across road, rail and water. This includes projects such as the installation of EV charging stations, hydrogen fuelling facilities for ships, rail electrification systems and infrastructure supporting pedestrian and cycling networks. Collectively, investments

<sup>34</sup> UN Environment Programme Finance Initiative, "Climate Risks in the Transportation Sector", (2024), at: <https://www.unepfi.org/wordpress/wp-content/uploads/2024/05/Climate-Risks-in-the-Transportation-Sector-1.pdf>

<sup>35</sup> IEA, "Transport", (2023), at: <https://www.iea.org/energy-system/transport>

<sup>36</sup> World Economic Forum, "7 Reasons Why Global Transport is so Hard to Decarbonize", 2021, at: <https://www.weforum.org/agenda/2021/11/global-transport-carbon-emissions-decarbonise/>

in this category are expected to accelerate the adoption of zero emissions transport and strongly contribute to the decarbonization of the transport sector in the target countries.

Climate Change Adaptation



We have assessed the Sustainability Contribution of the Climate Change Adaptation category as **Strong**.

Expenditures under this category include the financing of climate change adaptation projects for corporates and private individuals, mainly those related to water management, infrastructure and associated industrial practices, as well as agriculture and land management. In addition, the Bank may finance software and hardware to support the management of physical climate risks. The projects will be supported by a climate risk assessment to identify potential hazards and an adaptation plan to guide strategic responses, and are expected to substantially enhance resilience to physical climate impacts in various sectors.

Category Expenditures

Expenditure	Description
Investments in climate adaptation projects	<ul style="list-style-type: none"> <li>▶ Water management systems to improve irrigation, drainage and storage systems aiming to manage drought and flood risks.</li> <li>▶ Climate resilient infrastructure and operations to strengthen buildings, transport systems, agriculture, industrial practices, utilities against heat stress, heavy rainfall and high winds.</li> <li>▶ Sustainable land use projects including soil stabilization, reforestation and erosion control to prevent landslides and land degradation.</li> <li>▶ Projects for corporates will be supported by climate risk and vulnerability assessments and adaptation plans. The projects will be also monitored over the lifespan of the investment.</li> <li>▶ Projects for private individuals will be supported by a government-conducted climate risk mapping and municipal planning processes to assess their suitability.</li> <li>▶ Financed projects will not obstruct other environmental objectives, such as decarbonization.</li> </ul>
Investments in software and hardware dedicated to climate change adaptation and physical risk management	<ul style="list-style-type: none"> <li>▶ Software and hardware dedicated to climate change adaptation and physical risk management.</li> <li>▶ Projects will be supported by climate risk and vulnerability assessments and adaptation plans.</li> <li>▶ Projects will be monitored over the lifespan of the investment and will not obstruct other environmental objectives, such as decarbonization.</li> </ul>

Analytical Commentary

Between the 1970s and 2010s, the annual economic losses from climate-related extreme events increased from USD 198 billion to USD 1.6 trillion globally.<sup>37</sup> These extreme events, including flooding, droughts and heatwaves, are expected to become more frequent, intense and longer,

<sup>37</sup> OECD, "Infrastructure for a Climate-Resilient Future", (2024), at: [https://www.oecd.org/en/publications/infrastructure-for-a-climate-resilient-future\\_a74a45b0-en.html](https://www.oecd.org/en/publications/infrastructure-for-a-climate-resilient-future_a74a45b0-en.html)

threatening energy and food security, ecosystems, infrastructure, water resources, financial stability and human health.<sup>38</sup> Climate resilient infrastructure plays a key role in supporting communities and businesses to continue functioning and better mitigate climate-related risks to their assets.<sup>39</sup> Similarly, climate resilient agricultural practices are vital to meeting the projected 50-60% surge in global food demand between 2019 and 2050 amidst the increasing risks to agricultural systems posed by climate change.<sup>40</sup> In addition, data-driven and digital technologies, including earth observation tools and Internet of Things, provide data and tools for long-term physical climate risk management.<sup>41</sup> Approximately USD 387 billion in annual investment is needed to implement domestic adaptation priorities globally.<sup>42</sup>

Investments in climate change adaptation projects are supported by relevant assessments to ensure that they effectively address applicable climate risks. Eligible projects for corporates are also subject to monitoring and reassessment throughout their lifetime to adapt the evolving needs and climate conditions. The Bank's financing of climate change adaptation solutions, such as climate-resilient infrastructure, including reinforcement of building structures and upgrades to stormwater drainage systems in northern Sweden, are expected to support the specific adaptation efforts in various sectors. In addition, climate adaptation and risk management technologies, including both software and hardware, are essential tools for managing physical climate risks and supporting effective adaptation strategies. Overall, investments in this category are expected to make a strong contribution to the climate change adaptation efforts in various sectors.

Energy Efficiency



We have assessed the Sustainability Contribution of the Energy Efficiency category as **Strong**.

Handelsbanken will finance energy efficiency improvements in buildings, energy systems and manufacturing processes, including related R&D expenditures. The Bank may also finance the deployment of green hydrogen in low-carbon iron and steel manufacturing, that meet credible emissions intensities thereby supporting the decarbonization of traditionally carbon-intensive manufacturing processes. In addition, the Framework allows financing for the manufacturing of household appliances and the upgrading of telecommunication infrastructures. While energy efficiency is not the primary objective of these projects, they are expected to deliver energy efficiency gains. Collectively, investments under this category are expected to strongly contribute to advancing energy efficiency and accelerating the transition to a low carbon economy.

Category Expenditures

Expenditure	Description
Installation of energy efficient	► Installation, replacement, maintenance and repair of energy efficient equipment such as lighting sources, HVAC, windows and doors.

<sup>38</sup> European Environment Agency, "Climate change impacts, risks and adaptation", (2025), at: <https://www.eea.europa.eu/en/topics/in-depth/climate-change-impacts-risks-and-adaptation>

<sup>39</sup> OECD, "Infrastructure for a Climate-Resilient Future", (2024), at: [https://www.oecd.org/en/publications/infrastructure-for-a-climate-resilient-future\\_a74a45b0-en.html](https://www.oecd.org/en/publications/infrastructure-for-a-climate-resilient-future_a74a45b0-en.html)

<sup>40</sup> Falcon, W. et al., "Rethinking Global Food Demand for 2050", Population and Development Review, (2022), at:

[https://www.researchgate.net/publication/362572729\\_Rethinking\\_Global\\_Food\\_Demand\\_for\\_2050](https://www.researchgate.net/publication/362572729_Rethinking_Global_Food_Demand_for_2050)

<sup>41</sup> World Economic Forum, "Innovation and Adaptation in the Climate Crisis: Technology for the New Normal", (2024), at:

[https://www3.weforum.org/docs/WEF\\_Innovation\\_and\\_Adaptation\\_in\\_the\\_Climate\\_Crisis\\_2024.pdf](https://www3.weforum.org/docs/WEF_Innovation_and_Adaptation_in_the_Climate_Crisis_2024.pdf)

<sup>42</sup> UNEP, "Adaptation Gap Report 2023", (2023), at: <https://www.unep.org/resources/adaptation-gap-report-2023>

technologies in buildings

Investments in energy performance monitoring and control systems	<ul style="list-style-type: none"> <li>▶ Installation, replacement, maintenance and repair of energy monitoring and control systems, including smart gas metres.</li> </ul>
Manufacturing of electric heat pumps	<ul style="list-style-type: none"> <li>▶ Manufacture of electric heat pumps.</li> <li>▶ Expenditures exclude heat pumps with refrigerants that have Global Warming Potential (GWP) over 675.</li> </ul>
Manufacturing of energy efficient ventilation systems and household appliances	<ul style="list-style-type: none"> <li>▶ Manufacture of energy efficient ventilation systems.</li> <li>▶ Manufacture of household appliances that belong to the highest two populated classes of the relevant EU Energy Label<sup>43</sup> and meet the applicable Do No Significant Harm (DNSH) circular economy criteria under the EU Taxonomy.</li> </ul>
Installation of storage of electricity	<ul style="list-style-type: none"> <li>▶ Installation of electricity storage facilities including pumped hydropower storage connected to the national grid where the emissions factor is below 100gCO<sub>2</sub>e/kWh.</li> <li>▶ All new pumped hydropower storage facilities align with the applicable EU Taxonomy technical screening criteria for substantial contribution to climate change mitigation. In addition, each facility will be subject to an environmental and social impact assessment with no significant risk, controversy or expected negative impact identified.</li> </ul>
Manufacturing of batteries	<ul style="list-style-type: none"> <li>▶ Manufacture of batteries where the manufacturing facility is wholly dedicated to batteries for use in electricity storage and transportation.</li> </ul>
Installation of hydrogen storage	<ul style="list-style-type: none"> <li>▶ Installation of hydrogen storage facilities that are wholly dedicated to the storage of green hydrogen or hydrogen produced with low-carbon electricity.</li> </ul>
Installation of thermal energy storage	<ul style="list-style-type: none"> <li>▶ Installation of thermal energy storage facilities connected to renewables, waste heat or concentrated solar heat. Expenditures exclude thermal energy storage where waste heat is from fossil fuel operations or heat produced from fossil fuels.</li> </ul>
Investments in transmission and distribution of electricity	<ul style="list-style-type: none"> <li>▶ Development of infrastructure for transmission and distribution of electricity including smart grid technologies in accordance with the IEA definition.<sup>44</sup> Eligible projects comply with one of the following: <ul style="list-style-type: none"> <li>▶ The average grid emissions factor is below the threshold value of 100 gCO<sub>2</sub>e/kWh; or</li> <li>▶ The grid has more than 67% of newly enabled generation capacity below 100 gCO<sub>2</sub>/kWh, over a rolling five-year period; and the carbon intensities of the grids in Sweden, Norway, the Netherlands and the UK are below 445 gCO<sub>2</sub>e/kWh;<sup>45</sup> or</li> <li>▶ The infrastructure is dedicated to creating a direct connection for low-carbon electricity into the grid or reduce intermittency of renewable energy.</li> </ul> </li> </ul>

<sup>43</sup> European Commission, "Understanding the Energy Label", at: [https://energy-efficient-products.ec.europa.eu/ecodesign-and-energy-label/understanding-energy-label\\_en](https://energy-efficient-products.ec.europa.eu/ecodesign-and-energy-label/understanding-energy-label_en)

<sup>44</sup> IEA, "Smart grids", at: <https://www.iea.org/energy-system/electricity/smart-grids>

<sup>45</sup> IEA, "Electricity 2025", at: <https://www.iea.org/reports/electricity-2025/emissions>

	<ul style="list-style-type: none"> <li>▶ Expenditures exclude: i) new infrastructure dedicated to creating a direct connection between a substation or a network and a power production plant with a greenhouse gas emissions intensity higher than 100 gCO<sub>2</sub>e/kWh; and ii) expansion of existing infrastructure connecting a substation or a network and a power production plant with a greenhouse gas emissions intensity higher than 100 gCO<sub>2</sub>e/kWh.</li> </ul>
District heating and cooling distribution	<ul style="list-style-type: none"> <li>▶ District heating and cooling distribution where the network distributes heat or cooling powered at least 50% by renewables, waste heat or a combination of both.</li> </ul>
Production of district heating and cooling using waste heat	<ul style="list-style-type: none"> <li>▶ Production of heating and cooling using waste heat, excluding waste heat from fossil fuel operations.</li> </ul>
Manufacturing of iron and steel	<ul style="list-style-type: none"> <li>▶ Manufacture of iron and steel from virgin iron ore, using green hydrogen and low-carbon electricity.</li> <li>▶ Plants are located in Sweden and Norway, where the grids' emission factors are below 100 gCO<sub>2</sub>e/kWh</li> <li>▶ Facilities have either current emissions intensity below 1.9 tCO<sub>2</sub>e/t of steel or they meet the following emissions thresholds outlined in the EU Taxonomy for the manufacturing process steps: i) hot metal: 1,331 tCO<sub>2</sub>e/t product; ii) sintered ore: 0,163 tCO<sub>2</sub>e/t product; iii) iron casting: 0,299 tCO<sub>2</sub>e/t product; iv) electric arc furnace high alloy steel: 0,266 tCO<sub>2</sub>e/t product; and v) electric arc furnace carbon steel: 0,209 tCO<sub>2</sub>e/t product.<sup>46</sup></li> <li>▶ Each facility will have a credible transition plan in place.</li> </ul>
Upgrades to 4G, 5G and 6G networks	<ul style="list-style-type: none"> <li>▶ Modernization and upgrades to existing 4G, 5G and 6G networks and related supporting technologies, leading to a reduced energy consumption of at least 35% compared to previous generation networks.</li> <li>▶ The projects have smart-design and AI systems in place to optimize energy consumption of the networks while in operation.</li> </ul>
Development of data-driven solutions dedicated to reducing GHG emissions	<ul style="list-style-type: none"> <li>▶ Development of data-driven solutions dedicated to GHG emissions reduction, including carbon accounting software, AI-driven management tools, building energy management systems (BEMS), precision agriculture.</li> </ul>

### *Analytical Commentary*

Global energy efficiency improved by only 1% between 2023 and 2024. Accelerating energy efficiency improvements across various sectors can reduce CO<sub>2</sub> emissions by more than one-third by 2030, compared with 2024, and help reach net zero emissions (NZE) by 2050. To align with the NZE scenario, the buildings sector's energy intensity needs to decrease by 4.4% annually until 2030. This is more than three times the average rate of 1.4% reported between 2010 and 2023. Energy efficient equipment and related monitoring systems, such as heat pumps, also play a crucial role in improving buildings' energy efficiency.<sup>47</sup> Electricity storage is a key enabler for the expansion of low-carbon energy, as it offers a tool to manage hourly and seasonal variations in renewable energy. To achieve the NZE scenario by 2030, approximately 120 GW of additional

<sup>46</sup> European Commission, "Manufacture of iron and steel", at: [https://ec.europa.eu/sustainable-finance-taxonomy/activities/activity/274/view\\_](https://ec.europa.eu/sustainable-finance-taxonomy/activities/activity/274/view_)

<sup>47</sup> IEA, "Energy Efficiency", (2024), at: <https://iea.blob.core.windows.net/assets/f304f2ba-e9a2-4e6d-b529-fb67cd13f646/EnergyEfficiency2024.pdf>

storage capacity is needed annually.<sup>48</sup> In addition, approximately 80 million kilometres of grids will need to be installed or refurbished by 2040 to facilitate electrification globally.<sup>49</sup> Meanwhile, the iron and steel sector was responsible for 8% of global energy related emissions in 2022.<sup>50</sup> To achieve a NZE scenario by 2050, the sector needs to rapidly substitute coal with low carbon electrification.<sup>51</sup>

Handelsbanken's financing of energy efficient equipment, electric heat pumps using refrigerants with a GWP below 675, and energy-efficient ventilation systems, strongly contribute to reducing energy consumption in the building stock. Financing data-driven solutions that are dedicated to reducing GHG emissions, such as carbon accounting software and AI-driven management tools, will enable energy efficiency improvements across sectors. Additionally, energy monitoring and control systems help optimize the energy use and contribute to energy efficiency. Although smart gas metres financed can help reduce gas consumption in the short term, they do not support the long-term decarbonization goal, as they do not facilitate the transition to electrification.

The Bank may finance the manufacturing of household appliances. Given that they are primarily designed for functional tasks such as laundry or vacuuming, with energy efficiency as a secondary design objective, financing the full manufacturing does not demonstrate a dedicated effort to energy performance improvement. Nonetheless, given their high EU Energy Label classification, these investments are expected to have a significant impact.

Energy storage facilities and transmission and distribution systems, such as hydrogen, thermal energy, and pumped hydropower storage, are expected to strongly support energy transition. The Bank limits financing for pumped hydropower storage to facilities that have environmental and social impact assessments to mitigate associated risks. In addition, investments in electricity transmission and distribution systems are limited to those that are either directly connected to low carbon energy sources or to grids that already support high levels of low carbon energy and have emissions intensity below the global average of 445 gCO<sub>2</sub>e/kWh.<sup>52</sup> Although grids in many jurisdictions may incorporate substantial levels of low-carbon energy, many remain heavily dependent on fossil fuels, particularly coal. Grids with carbon intensity below the global average of 445 gCO<sub>2</sub>e/kWh indicate a commitment to ongoing decarbonization.

Regarding district heating, its decarbonization potential is largely untapped, as approximately 90% of heat production supplied to networks runs on fossil fuels worldwide.<sup>53</sup> The Bank's investment in heating and cooling production from waste heat captures excess thermal energy from industrial processes, thereby reducing the need for energy generation. Similarly, investments in district heating and cooling distribution networks where more than 50% of heat distributed is from renewable sources or waste heat support low carbon objective.<sup>54</sup> Overall, these investments contribute strongly to the energy efficiency of heating and cooling systems.

The Bank may finance iron and steel manufacturing facilities that process virgin iron ore using green hydrogen as a substitute for coal in the direct reduction stage. Additionally, electric arc

<sup>48</sup> IEA, "Grid-scale Storage", at: <https://www.iea.org/energy-system/electricity/grid-scale-storage>

<sup>49</sup> IEA, "Electricity Grids and Secure Energy Transitions", (2023), at: <https://iea.blob.core.windows.net/assets/ea2ff609-8180-4312-8de9-494bcf21696d/ElectricityGridsandSecureEnergyTransitions.pdf>

<sup>50</sup> World Economic Forum, "Steel industry net-zero tracker", (2023), at: <https://www.weforum.org/publications/net-zero-industry-tracker-2023/infull/steel-industry-net-zero-tracker/>

<sup>51</sup> IEA, "Steel", (2023), at: <https://www.iea.org/energy-system/industry/steel#tracking>.

<sup>52</sup> IEA, "Electricity 2025", at: <https://www.iea.org/reports/electricity-2025/emissions>

<sup>53</sup> IEA, "District Heating", at: <https://www.iea.org/energy-system/buildings/district-heating>

<sup>54</sup> European Commission, "District heating/cooling distribution", at: <https://ec.europa.eu/sustainable-finance-taxonomy/activities/activity/301/view>

furnaces of such facilities will operate on low emission electricity during the energy-intensive melting stage. Given the use of low emissions energy sources, the facilities are expected to strongly contribute to decarbonization of the iron and steel production and carry a minimal fossil fuel lock-in risk. In addition, the facilities either meet the emissions intensity threshold of 1.9 tCO<sub>2</sub>e/t of steel, in accordance with the Sustainable Steel Principles,<sup>55</sup> or comply with the process-specific emission intensity thresholds outlined in the EU Taxonomy.<sup>56</sup> The Bank also requires such facilities to have a credible transition plan in place to mitigate any risk of locking in emissions-intensive steel production.

Eligible expenditure will also cover upgrades of existing 4G, 5G and 6G networks. While these upgrades incorporate energy optimization systems, energy efficiency remains a secondary objective for the financing. Nonetheless, the projects are expected to make a significant contribution to energy efficiency by targeting a 35% reduction in energy consumption. Collectively, investments under this category will strongly contribute to advancing energy efficiency and accelerating the transition to a low carbon economy.

Pollution Prevention and Control



We have assessed the Sustainability Contribution of the Pollution Prevention and Control category as **Strong**.

Handelsbanken may finance the collection, transport and recycling of hazardous and non-hazardous waste, and implement appropriate environmental and social risk management systems. Eligible projects may include hazardous waste treatment following solely the EU Taxonomy pollution prevention objective. Such projects are already subject to strict regulatory requirements and may not offer additional environmental benefits beyond compliance with regulation. Funding will also be directed to waste-to-energy facilities, which in the short term provide an interim solution in regions where full recycling is not yet feasible. In Sweden, where robust waste management systems are already in place, such investments are expected to deliver a moderate impact. The Bank may also finance carbon capture, storage and utilization technologies integrated in bioenergy power plants, provided they meet credible emissions reduction thresholds and use certified feedstock. Collectively, these investments will contribute strongly to the improvement of waste management practices and reduction of greenhouse gas emissions.

Category Expenditures

Expenditure	Description
Collection and transport of non-hazardous waste	<ul style="list-style-type: none"> <li>▶ Separate collection and transport of non-hazardous waste for reuse or recycling. This includes the acquisition of electric collection trucks and sorting facilities, such as optical waste sorting machines.</li> </ul>
Recycling of non-hazardous waste	<ul style="list-style-type: none"> <li>▶ Construction, installation and maintenance of recycling facilities that convert inputs into original materials or convert at least 50% of the processed waste into secondary raw materials.</li> <li>▶ Recycling of electronic and plastic wastes will be compliant with national regulations in countries with adequate regulatory frameworks for waste</li> </ul>

<sup>55</sup> Sustainable Steel Principles, "Sustainable Steel Principles", at: <https://steelprinciples.org/>

<sup>56</sup> European Commission, "Manufacture of iron and steel", at: <https://ec.europa.eu/sustainable-finance-taxonomy/activities/activity/274/view>

	<p>management systems, while in countries where such regulations are lacking, robust waste management plants will be established.</p> <ul style="list-style-type: none"> <li>▶ Mechanical and chemical recycling of plastics. Chemical recycling will have life cycle GHG emissions lower than virgin plastic production.</li> <li>▶ Construction and operation of facilities for the treatment and composting of bio-waste, which may include garden and park waste, food and kitchen waste, and waste from food processing plants.</li> <li>▶ Construction and operation of facilities for the anaerobic digestion of bio-waste and sewage sludge, excluding the following: i) wastewater from fossil fuel operations; ii) waste from non-certified RSPO palm oil operations, such as palm oil mill effluents; iii) animal manure from both industrial-scale and non-industrial-scale livestock operations; and iv) animal fats, oils, as well as other animal processing by-products.</li> </ul>
Collection and transport of hazardous waste	<ul style="list-style-type: none"> <li>▶ Eligible expenditures will comply with applicable national legislation and align with the EU Taxonomy's technical screening criteria for substantial contribution to the pollution prevention objective for the collection and transport of hazardous waste.<sup>57</sup></li> <li>▶ Waste collection vehicles will be limited to electric vehicles.</li> </ul>
Treatment of hazardous waste	<ul style="list-style-type: none"> <li>▶ Construction and operation of facilities that: <ul style="list-style-type: none"> <li>▶ Align with the EU Taxonomy's technical screening criteria for substantial contribution to either the pollution prevention objective or the circular economy objective, for the treatment of hazardous waste.<sup>58</sup></li> <li>▶ Comply with applicable national legislation.</li> <li>▶ Have an environmental and social risk management system for the appropriate handling of waste.</li> </ul> </li> </ul>
Energy generation through the incineration of waste	<ul style="list-style-type: none"> <li>▶ Construction and operation of: i) facilities that generate energy from incinerating municipal solid waste (MSW) or mixed residual waste (MRW); and ii) co-incineration facilities with MSW, MRW and biomass as input, where biomass comply with the EU Taxonomy's technical screening criteria for substantial contribution to the production of heating and cooling from bioenergy, contributing to the climate mitigation objective.<sup>59</sup></li> <li>▶ Eligible facilities must have an emissions intensity below 100 gCO<sub>2</sub>e/kWh.</li> <li>▶ The majority of recyclable materials are segregated before incineration.</li> <li>▶ The waste streams of the facilities will not be dedicated to fossil-based inputs such as fossil-based plastics, rubber, scrap tires and tire-derived fuels (TDF), refuse-derived fuel (RDF), and solid recovery fuel (SRFs). Additionally, the Framework excludes peat, coal, oil, gas and other fossil fuels, except as required to start the incineration process.</li> </ul>
Carbon Capture and Storage (CCS) and Carbon Capture and Utilization (CCU) of CO <sub>2</sub> emissions	<ul style="list-style-type: none"> <li>▶ Construction of bioenergy power plants incorporating CCS and CCU technologies.</li> <li>▶ Eligible facilities will either have a life cycle GHG emissions intensity below 100 gCO<sub>2</sub>e/kWh or achieve GHG emissions savings of at least 80% from the use of biomass compared to the fossil fuel baseline.</li> <li>▶ The plants may use both waste and non-waste biomass.</li> </ul>

<sup>57</sup> European Commission, "EU Taxonomy Navigator - Collection and Transport of Hazardous Waste, Substantial Contribution Criteria", at: <https://ec.europa.eu/sustainable-finance-taxonomy/activities/activity/408/view>

<sup>58</sup> European Commission, "EU Taxonomy Navigator - Treatment of hazardous waste, Substantial Contribution Criteria", at: <https://ec.europa.eu/sustainable-finance-taxonomy/activities/activity/392/view>

<sup>59</sup> European Commission, "EU Taxonomy Navigator - Production of Heat/Cool from Bioenergy, Substantial Contribution Criteria", at: <https://ec.europa.eu/sustainable-finance-taxonomy/activities/activity/310/view>

- from biogenic sources (BECCS)
- ▶ Waste biomass will align with the EU Taxonomy's technical screening criteria for substantial contribution to climate change mitigation for the following activities: electricity generation from bioenergy,<sup>60</sup> cogeneration of heating, cooling and power from bioenergy,<sup>61</sup> and production of heating and cooling from renewable non-fossil gaseous and liquid fuels.<sup>62</sup>
  - ▶ Non-waste biomass will obtain one of the following certifications: Roundtable of Sustainable Biomass (RSB),<sup>63</sup> International Sustainability & Carbon Certification EU (ISCC EU),<sup>64</sup> International Sustainability & Carbon Certification Plus (ISCC PLUS),<sup>65</sup> Forest Stewardship Council (FSC),<sup>66</sup> Programme for the Endorsement of Forest Certification (PEFC),<sup>67</sup> or Sustainable Biomass Program (SBP).<sup>68</sup>
  - ▶ Expenses do not include the separate transportation and storage of CO<sub>2</sub>.

### *Analytical Commentary*

Investments in waste management systems and recycling facilities are critical in curbing GHG emissions and transitioning to a circular economy. In 2020, approximately 2.1 billion tonnes of municipal solid waste was generated globally, and this amount is projected to rise by 56%, reaching 3.8 billion tonnes by 2050, driven by population and economic growth.<sup>69</sup> Of the total waste generated, 30% is sent to landfills, 13% is processed in waste-to-energy facilities, and 19% is directed to recycling centres, while the remaining portion is either dumped or openly burned. In addition, approximately 300 million to 500 million tonnes of hazardous waste is produced annually worldwide,<sup>70</sup> posing serious risks to both human health and the environment.<sup>71</sup> Improving waste management practices has the potential to reduce global GHG emissions by 15-25%, highlighting the importance of recycling measures.<sup>72</sup> Complementing these efforts, carbon capture, utilization, and storage (CCUS) technologies offer a pathway for reducing emissions that are unavoidable or difficult to eliminate through conventional means. However, the current scale of CCUS deployment remains limited, with only 0.1% of global emissions, or approximately 50 million metric tons of CO<sub>2</sub>, being captured annually.<sup>73</sup> This is far below the 1 gigatonne CO<sub>2</sub> annual carbon capture target needed to reach the net zero emissions goal by 2050.<sup>74</sup>

The Bank may finance the collection and transport of non-hazardous waste for reuse or recycling, including the procurement of electric waste collection vehicles. Eligible expenditures also include material recovery from non-hazardous waste, with a requirement that at least 50% of processed

<sup>60</sup> European Commission, "EU Taxonomy Navigator - Electricity Generation from Bioenergy, Substantial Contribution Criteria", at: <https://ec.europa.eu/sustainable-finance-taxonomy/activities/activity/294/view>

<sup>61</sup> European Commission, "EU Taxonomy Navigator - Cogeneration of Heat/Cool and Power from Bioenergy, Substantial Contribution Criteria", at: <https://ec.europa.eu/sustainable-finance-taxonomy/activities/activity/306/view>

<sup>62</sup> European Commission, "EU Taxonomy Navigator - Cogeneration of Heat/Cool and Power from Renewable Non-Fossil Gaseous and Liquid Fuels, Substantial Contribution Criteria", at: <https://ec.europa.eu/sustainable-finance-taxonomy/activities/activity/305/view>

<sup>63</sup> RSB: <https://rsb.org/certification/>

<sup>64</sup> ISCC EU: <https://www.iscc-system.org/certification/iscc-certification-schemes/iscc-eu/>

<sup>65</sup> ISCC PLUS: <https://www.iscc-system.org/certification/iscc-certification-schemes/iscc-plus/>

<sup>66</sup> FSC: <https://us.fsc.org/en-us/certification>

<sup>67</sup> PEFC: <https://pefc.org/>

<sup>68</sup> SBP: <https://sbp-cert.org/>

<sup>69</sup> United Nations Environment Programme, "Global Waste Management Outlook 2024", (2024), at: <https://wedocs.unep.org/handle/20.500.11822/44939>

<sup>70</sup> Martínez, HJ et al., (2022), "The world-wide waste web", Nature Communications, at: <https://pmc.ncbi.nlm.nih.gov/articles/PMC8964736/>

<sup>71</sup> Environmental Protection Agency, "Health and Ecological Hazards Caused by Hazardous Substances", (2024), at: <https://www.epa.gov/emergency-response/health-and-ecological-hazards-caused-hazardous-substances>

<sup>72</sup> United Nations Environment Programme, "Global Waste Management Outlook 2024", (2024), at: <https://wedocs.unep.org/handle/20.500.11822/44939>

<sup>73</sup> World Resources Institute, "7 Things to Know About Carbon Capture, Utilization and Sequestration", (2025), at: <https://www.wri.org/insights/carbon-capture-technology>

<sup>74</sup> IEA, "Carbon Capture Utilisation and Storage", at: <https://www.iea.org/energy-system/carbon-capture-utilisation-and-storage#tracking>

waste be converted into secondary raw materials by weight. All these activities are expected to substantially minimize the environmental impact associated with waste management.

The Bank will also finance recycling facilities for processing various waste streams, including electronic waste and plastics. For plastics, both mechanical and chemical recycling will be financed, provided that chemical recycling demonstrates life cycle GHG emissions lower than virgin plastic production. All recycling activities involving e-waste and plastics will be supported by robust waste management systems. Recycling of e-waste has a strong environment impact. However, recycled plastic may ultimately be used for single-use applications, posing a risk of leaking into the environment; nonetheless, these expenditures are still expected to significantly enhance recycling practices and reduce the environmental impact of wastes.

In addition to non-hazardous waste, the Framework allows financing for the collection, transport, and treatment of hazardous waste in line with the EU Taxonomy's substantial contribution criteria under both pollution prevention and circular economy objectives. This includes the use of best available techniques and strict measures to minimise environmental harm. While hazardous waste treatment is regulated globally, European waste legislation sets high environmental standards for its disposal. Furthermore, recycling and recovery of hazardous waste must be prioritized over disposal, in accordance with the waste hierarchy, to reduce raw material consumption. Together, these investments are expected to deliver an overall significant environmental impact.

Handelsbanken may also finance facilities for the composting and anaerobic digestion of biowaste and sewage sludge, which strongly support circular economy goals by enabling organic waste reuse. The Framework's exclusionary criteria on feedstock further reinforces this contribution. Additionally, the Bank may finance waste-to-energy facilities with an emissions intensity below 100 gCO<sub>2</sub>e/kWh. The composition of waste, especially its fossil carbon content, is critical to ensuring low emissions intensity for such projects. Under the Framework, waste streams used in eligible facilities will be segregated before incineration and will not include fossil-based inputs, except as required to initiate the process. While WtE can reduce landfill volumes and methane emissions, it may also divert materials that could otherwise be recycled, shifting focus from circular economy principles that prioritize minimizing waste. Nevertheless, in regions lacking adequate recycling infrastructure, WtE can serve as an interim solution, offering a short-term alternative to landfilling. The Bank will finance facilities operating in Sweden, where effective waste management systems and recycling infrastructure are already in place. In this context, the Bank's financing is expected to make a moderate contribution to improving waste management practices.

Further, the Framework also allows financing for CCS and CCU technologies integrated in bioenergy power plants, provided the plants meet a life cycle GHG emissions intensity below 100 gCO<sub>2</sub>e/kWh or achieve at least 80% GHG emissions savings compared to the fossil-fuel baseline. The Bank will finance both waste and non-waste biomass feedstock with sustainable sourcing safeguards to avoid environmental harm, such as reducing emissions, preserving food security and preventing biodiversity loss. Given these requirements, the investments are expected to strongly contribute to GHG emissions reduction.

Collectively, investments under this category are expected to substantially improve waste management practices and contribute to GHG emissions reduction.

Renewable Energy



We have assessed the Sustainability Contribution of the Renewable Energy category as **Strong**.

Handelsbanken may finance the energy generation from renewable sources, including wind, solar, ocean, geothermal, hydropower, and the manufacturing of enabling technologies. Hydropower facilities are subject to environmental and social impact assessments to ensure that no significant risks or controversies remain unresolved. Expenditures also include green hydrogen production, as well as biofuel manufacturing and bioenergy generation using sustainably sourced feedstock. Together, these investments substantially promote the use of low carbon energy and play a key role in the energy transition.

Category Expenditures

Expenditure	Description
Energy generation from onshore and offshore wind power	<ul style="list-style-type: none"> <li>▶ Construction and operation of onshore and offshore wind energy generation facilities and related infrastructure, such as grid connections and electric sub-stations.</li> <li>▶ Fossil fuel back-up for offshore wind will be limited to that required for operational continuity.</li> </ul>
Energy generation from solar power	<ul style="list-style-type: none"> <li>▶ Construction and operation of solar photovoltaics (PV) facilities and related infrastructure for: i) energy generation; ii) heating, cooling and power cogeneration; and iii) solar thermal heating.</li> </ul>
Energy generation from hydropower	<ul style="list-style-type: none"> <li>▶ Construction and operation of hydropower plants and related infrastructure, including investments in dam renovation, as well as new and upgraded grid connections and electric substations.</li> <li>▶ Eligible hydropower plants will have one of the following: i) run-of-river without an artificial reservoir; ii) a power density greater than 5 W/m<sup>2</sup> or life cycle emissions intensity below 100 gCO<sub>2</sub>e/kWh if the facility became operational before end of 2019; and iii) a power density greater than 10 W/m<sup>2</sup> or life cycle emissions intensity below 50 gCO<sub>2</sub>e/kWh, if the facility is operational after the end of 2019.</li> <li>▶ Eligible plants must undergo an environmental and social impact assessment to ensure that there are no unresolved environmental or social impacts or associated controversies.</li> </ul>
Energy generation from geothermal energy	<ul style="list-style-type: none"> <li>▶ Construction and operation of geothermal facilities and related infrastructure with a life cycle GHG emissions intensity below 100 gCO<sub>2</sub>/kWh:                             <ul style="list-style-type: none"> <li>▶ Geothermal facilities for: i) electricity generation; ii) heating and cooling generation; and iii) heating, cooling and power cogeneration.</li> <li>▶ Manufacture and installation of associated heat pumps with a GWP below 675, and installation of heat exchangers. Eligible heat pumps will have an appropriate refrigerant management system in place.</li> </ul> </li> </ul>

Electricity generation from ocean energy technologies	<ul style="list-style-type: none"> <li>▶ Construction and operation of facilities that produce electricity from ocean energy, following the EU Taxonomy's technical screening criteria for substantial contribution to climate change mitigation.<sup>75</sup></li> <li>▶ Fossil fuel back-up will not be used.</li> </ul>
Production of green hydrogen and manufacture of equipment for the production and use of green hydrogen	<ul style="list-style-type: none"> <li>▶ Production of green hydrogen through electrolysis, using electricity sourced from renewables.</li> <li>▶ Manufacture of equipment for the production and utilization of green hydrogen defined above.</li> <li>▶ Hydrogen produced will not be supplied for oil refining or fossil fuel operations.</li> </ul>
Energy generation from bioenergy	<ul style="list-style-type: none"> <li>▶ Generation of electricity, or cogeneration of heating, cooling and power from bioenergy, achieving at least 80% GHG emissions savings compared to the fossil-fuel baseline.</li> <li>▶ Feedstock includes waste and non-waste biomass.</li> <li>▶ Eligible waste biomass will align with the EU Taxonomy's technical screening criteria for substantial contribution to climate change mitigation for the following activities: electricity generation from bioenergy,<sup>76</sup> cogeneration of heating, cooling and power from bioenergy,<sup>77</sup> and production of heating and cooling from renewable non-fossil gaseous and liquid fuels.<sup>78</sup></li> <li>▶ Eligible non-waste biomass will achieve one of the following certifications: RSB, ISCC EU, ISCC PLUS, FSC, PEFC<sup>79</sup> or SBP.</li> </ul>
Manufacture of biofuels	<ul style="list-style-type: none"> <li>▶ Construction and operation of biofuel production facilities: i) facilities commissioned after January 2021 must achieve at least a 65% life cycle GHG savings compared to the fossil fuel baseline, and ii) facilities commissioned after January 2026 must achieve at least a 70% life cycle GHG emissions savings compared to the fossil fuel baseline.</li> <li>▶ Feedstock used for biofuel production includes both waste and non-waste biomass.</li> <li>▶ Waste biomass and non-waste biomass will align with the criteria stated above under the energy generation from bioenergy.</li> </ul>
Manufacture of renewable energy technologies	<ul style="list-style-type: none"> <li>▶ Manufacture of renewable energy technologies and equipment, where the manufacturing facilities are fully dedicated to producing equipment and technologies for the renewable energy sources listed above.</li> </ul>

### Analytical Commentary

Investments in low carbon energy are critical for the global energy transition, as electricity and heat generation were responsible for approximately 44% of global CO<sub>2</sub> emissions from fuel combustion in 2022.<sup>80</sup> Meanwhile, unabated fossil fuels continue to supply over 60% of global

<sup>75</sup> European Commission, "EU Taxonomy Navigator - Electricity Generation from Ocean Energy Technologies, Substantial Contribution Criteria", at: <https://ec.europa.eu/sustainable-finance-taxonomy/activities/activity/290/view>

<sup>76</sup> European Commission, "EU Taxonomy Navigator - Electricity Generation from Bioenergy, Substantial Contribution Criteria", at: <https://ec.europa.eu/sustainable-finance-taxonomy/activities/activity/294/view>

<sup>77</sup> European Commission, "EU Taxonomy Navigator - Cogeneration of Heat/Cool and Power from Bioenergy, Substantial Contribution Criteria", at: <https://ec.europa.eu/sustainable-finance-taxonomy/activities/activity/306/view>

<sup>78</sup> European Commission, "EU Taxonomy Navigator - Cogeneration of Heat/Cool and Power from Renewable Non-Fossil Gaseous and Liquid Fuels, Substantial Contribution Criteria", at: <https://ec.europa.eu/sustainable-finance-taxonomy/activities/activity/305/view>

<sup>79</sup> PEFC: <https://pefc.org/>

<sup>80</sup> IEA, "Greenhouse Gas Emissions from Energy Data Explorer", (2024), at: <https://www.iea.org/data-and-statistics/data-tools/greenhouse-gas-emissions-from-energy-data-explorer>

electricity generation.<sup>81</sup> To limit global temperature rise to 1.5°C, the share of renewable energy must increase to 90% by 2050, while the share of unabated fossil fuels need to decrease to below 30% by 2030.<sup>82</sup>

Investments in wind, solar, ocean energy, geothermal and hydropower projects contribute substantially to the goal of zero emissions energy systems, as these technologies have life cycle GHG emissions intensities below the technology-agnostic threshold of 100 gCO<sub>2</sub>e/kWh,<sup>83</sup> which is consistent with limiting the global temperature rise to 2°C.<sup>84</sup> The Framework further requires new hydropower facilities to have a power density greater than 10 W/m<sup>2</sup> or life cycle emissions intensity below 50 gCO<sub>2</sub>e/kWh, and excludes any facility that lacks a credible environmental and social impact assessment.

The Bank may also finance the production of green hydrogen through water electrolysis powered by renewable energy, as well as the manufacture of equipment required for its production. Green hydrogen can play a major role in decarbonizing hard-to-abate sectors, such as heavy industry, transport and power, by offering a clean energy carrier where other renewable alternatives may be unfeasible.

Electricity generation from bioenergy and production of biofuels financed under the Framework will strongly support the energy transition, given their substantial GHG emissions reductions compared to fossil fuel baselines and the use of sustainably sourced feedstock.

In addition to renewable energy generation, investments under the Framework will be directed to facilities that are wholly dedicated to manufacturing renewable energy technologies, which will contribute to phasing out the production of carbon-intensive and fossil fuel-based equipment.

Collectively, investments in this category are expected to strongly contribute to the decarbonization of the energy sector in the target countries.

Sustainable Water and Wastewater Management



We have assessed the Sustainability Contribution of the Sustainable Water and Wastewater Management category as **Strong**.

Expenditures under this category include the construction of water supply systems, and infrastructure and technology for water and wastewater collection and treatment. All projects will be accompanied by water leakage assessments to identify and reduce water loss. These investments are expected to make a strong contribution to the improvement of water and wastewater management.

Category Expenditures

Expenditure	Description
Construction, extension, renewal	► Development of facilities, technologies, and related infrastructure for renewing, treating and collecting water.

<sup>81</sup> IEA, "Electricity - Tracking", (2023), at: <https://www.iea.org/energy-system/electricity>

<sup>82</sup> IEA, "Net Zero by 2050", (2021), at: <https://www.iea.org/reports/net-zero-by-2050>

<sup>83</sup> Silva, M. et al., "Life cycle GHG emissions of renewable and non-renewable electricity generation technologies", RE-Invest Project, (2019), at: [https://reinvestproject.eu/wp-content/uploads/2019/11/OR\\_RE-INVEST\\_Life-cycle-GHG-emissions-of-renewable-and-non-renewable-electricity.pdf](https://reinvestproject.eu/wp-content/uploads/2019/11/OR_RE-INVEST_Life-cycle-GHG-emissions-of-renewable-and-non-renewable-electricity.pdf)

<sup>84</sup> IEA, "Energy Technology Perspective", (2017), at: [https://iea.blob.core.windows.net/assets/a6587f9f-e56c-4b1d-96e4-5a4da78f12fa/Energy\\_Technology\\_Perspectives\\_2017-PDF.pdf](https://iea.blob.core.windows.net/assets/a6587f9f-e56c-4b1d-96e4-5a4da78f12fa/Energy_Technology_Perspectives_2017-PDF.pdf)

and operation of water collection, treatment and supply systems	<ul style="list-style-type: none"> <li>▶ Eligible projects will undergo water leakage assessment through the track of infrastructure leakage index.</li> <li>▶ Expenditures exclude projects dedicated to emissions intensive or controversial activities.</li> </ul>
Construction, extension, renewal and operation of wastewater collection and treatment systems	<ul style="list-style-type: none"> <li>▶ Development of facilities, technologies and related infrastructure for wastewater collection and treatment.</li> <li>▶ Eligible projects will: i) undergo water leakage assessment through the track of infrastructure leakage index; ii) have a management plan for monitoring the discharge into receiving waters; and iii) further treat the by-product of wastewater treatment through anaerobic digestion or other treatment methods.</li> <li>▶ Expenditures exclude projects dedicated to emissions intensive or inherently harmful activities.</li> </ul>

### *Analytical Commentary*

Approximately 26% of the global population lacks access to safe drinking water, according to UNESCO.<sup>85</sup> Around one-quarter of the world's population experiences extremely high levels of water stress, consuming more than 80% of annual renewable freshwater supply in their region. In addition, 20% to 50% of the distributed water is lost due to leakages and ageing infrastructure.<sup>86</sup> Globally, an estimated 268 billion m<sup>3</sup> of household wastewater was produced in 2022, while only 58% of it was collected, treated and discharged safely. The remainder was released untreated, contaminating water bodies and endangering human health.<sup>87,88</sup> The combination of water stress, extensive freshwater usage and limited access to safe water and sanitation highlights the need for more efficient water infrastructure and wastewater treatment.

The Bank may finance the construction, extension, renewal and operation of water and wastewater collection, treatment and supply systems, including facilities and supporting infrastructure and technologies. Eligible projects may include ultrafilters, energy-efficient pumping stations, automated control systems, high-efficiency blowers, stormwater treatment facilities, membrane bioreactor, advanced coarse screening and primary sedimentation technology, and integration of AI and IoT in existing supervisory control and data acquisition systems to reduce leakage and improve performance. Water leakage assessments are required for all projects to identify and address water losses, which are expected to reduce the volume of water that must be extracted, treated, and pumped.

In Sweden, wastewater treatment facilities will comply with the national legislation, which mandates a management plan for monitoring discharges into receiving waters. In regions without such regulation, Handelsbanken will require eligible projects to have an equivalent water management plan. Additionally, byproduct generated through wastewater treatment process, such as sewage sludge, will be subject to further treatment through anaerobic digestion or other treatment methods. Overall, these investments are expected to strongly improve the efficient supply of water and wastewater treatment.

<sup>85</sup> UNESCO, "Imminent risk of a global water crisis, warns the UN World Water Development Report 2023", at: <https://www.unesco.org/en/articles/imminent-risk-global-water-crisis-warns-un-world-water-development-report-2023>

<sup>86</sup> AbuEltayef H. et al., "Addressing non-revenue water as a global problem and its interlinkages with sustainable development goals", The International Water Association, 2024, at: <https://iwaonline.com/wpt/article/18/12/3175/98008/Addressing-non-revenue-water-as-a-global-problem>

<sup>87</sup> UN Water, "Progress on the proportion of domestic and industrial wastewater flows safely treated", (2024), at: [https://www.unwater.org/sites/default/files/2024-08/SDG6\\_Indicator\\_Report\\_631\\_Progress-on-Wastewater-Treatment\\_2024\\_EN\\_0.pdf](https://www.unwater.org/sites/default/files/2024-08/SDG6_Indicator_Report_631_Progress-on-Wastewater-Treatment_2024_EN_0.pdf)

<sup>88</sup> UNESCO, "The United Nations World Water Development Report 2024: water for prosperity and peace", (2024), at: <https://www.unesco.org/reports/wwdr/en/2024/s>

## Environmental and Social Risk Management

We have identified the following areas of environmental and social risk associated with the expenditures eligible under the Framework: land use and biodiversity issues associated with infrastructure development; emissions, effluents and waste management; occupational health and safety; community relations; business ethics and predatory lending. Handelsbanken has the following policies and processes in place to identify and mitigate such risks.

E&S Risk identified	Applicable policies, procedures and measures
Due diligence and risk management measures	<ul style="list-style-type: none"> <li>▶ The Bank integrates sustainability risk analysis into its credit risk assessment process for all corporate loans and investment projects. This includes an assessment of clients' impacts on climate change, their governance structures and transition plans. Under this process, the Bank implements an internal rating system at the borrower level to identify and measure clients' exposure to material sustainability risks in their respective sectors and monitors the results as part of its annual credit review process.<sup>89,90</sup></li> <li>▶ The Bank's due diligence and risk management processes follow internationally recognized principles and standards, such as the UN Principles for Responsible Banking,<sup>91</sup> the UN Guiding Principles on Business and Human Rights,<sup>92</sup> the OECD Guidelines for Multinational Enterprises on Responsible Business Conduct<sup>93</sup> and the International Finance Corporation's Performance Standards.<sup>94</sup></li> </ul>
Land use and biodiversity issues associated with infrastructure development	<ul style="list-style-type: none"> <li>▶ Handelsbanken's Guidelines for Environment and Climate Change outline a commitment to minimize adverse environmental impacts across its lending and asset management.<sup>95</sup> The Bank continues to develop its approach to managing risks related to land use and biodiversity loss in financed projects, as data and methodology to integrate biodiversity considerations into financial portfolio are evolving.</li> <li>▶ The Bank used the WWF Biodiversity Risk Filter tool<sup>96</sup> to identify biodiversity impacts and dependencies within its lending portfolio and to inform its internal process for mitigating biodiversity risks in financed projects. In addition, with the real estate sector representing over 80% of the Bank's total lending, Handelsbanken leverages location-based, property-level data to identify site-specific biodiversity risks and opportunities.<sup>97</sup></li> <li>▶ The Bank's sector-specific guidelines for forestry and farming require borrowers to comply with applicable local regulations, implement processes to mitigate sustainability risks in their operations, adopt sustainable agricultural practices, prevent deforestation and preserve high conservation value forests.<sup>98</sup></li> </ul>

<sup>89</sup> Handelsbanken, "Annual and Sustainability Report 2024", at: <https://www.handelsbanken.com/tron/xgpu/info/contents/v1/document/72-263272>

<sup>90</sup> Handelsbanken, "Policy for Sustainability in the Handelsbanken Group", (2025), at: <https://www.handelsbanken.com/tron/xgpu/info/contents/v1/document/72-265393>

<sup>91</sup> UNEP Finance Initiative, "Principles for Responsible Banking", at: <https://www.unepfi.org/banking/bankingprinciples/>

<sup>92</sup> UN, "Guiding Principles on Business and Human Rights", at: [https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr\\_en.pdf](https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf)

<sup>93</sup> OECD, "Guidelines for Multinational Enterprises on Responsible Business Conduct", at: <https://mneguidelines.oecd.org/mneguidelines/>

<sup>94</sup> IFC, "IFC's Performance Standards on Environmental and Social Sustainability", (2012), at: <https://www.ifc.org/en/insights-reports/2012/ifc-performance-standards>

<sup>95</sup> Handelsbanken, "Environment and Climate Change - Handelsbanken's Guidelines", (2024), at:

<https://www.handelsbanken.com/tron/xgpu/info/contents/v1/document/72-97675>

<sup>96</sup> WWF, "Biodiversity Risk Filter", at: <https://riskfilter.org/biodiversity/home>

<sup>97</sup> Handelsbanken, "Handelsbanken's Nature and Biodiversity progress report 2023", at: <https://www.handelsbanken.com/tron/xgpu/info/contents/v1/document/72-239046>

<sup>98</sup> Handelsbanken, "Guidelines for Handelsbanken's Offering within Forestry and Farming", at: <https://www.handelsbanken.com/tron/xgpu/info/contents/v1/document/72-97678>

Emissions, effluents and waste management	<ul style="list-style-type: none"> <li>▶ Handelsbanken's Guidelines for Environment and Climate Change encourage its clients to adopt more circular business models to reduce environmental pollution, while the Bank expects companies operating in forestry and farming to reduce emissions and discharges of harmful substances into air and water, improve resource efficiency, including efficient water use, and avoid unnecessary use of synthetic fertilizers or pesticides.<sup>99,100</sup></li> </ul>
Occupational health and safety	<ul style="list-style-type: none"> <li>▶ As part of its integrated credit risk assessment, the Bank assesses borrowers' compliance with relevant occupational health and safety (OHS) regulations and standards.</li> <li>▶ Handelsbanken adheres to the Swedish Work Environment Act, which establishes guidelines to prevent occupational health issues and accidents at the workplace.<sup>101</sup> For projects financed in the UK, the Bank requires clients to comply with the Health and Safety at Work etc. Act 1974, which establishes general duties for employers to ensure the health and safety of their employees and the public.<sup>102</sup> Projects in Norway must comply with the Norwegian Working Environment Act, which requires enterprises to implement necessary measures to prevent occupational risks, provide training and elect safety representatives to protect workers' health and safety.<sup>103</sup> In the Netherlands, the legal framework governing OHS risks includes the Working Conditions Act,<sup>104</sup> Decree<sup>105</sup> and Regulation,<sup>106</sup> and the Major Accident Risks Decree<sup>107</sup> and its related Scheme,<sup>108</sup> which require companies to systematically identify, assess and manage OHS risks, including those related to major accidents, by implementing preventive measures and ensuring safe working conditions.</li> </ul>
Community relations	<ul style="list-style-type: none"> <li>▶ Handelsbanken maintains continuous dialogue with stakeholders on sustainability issues through its network of local branches. The Bank engages with local communities where its projects are located, including non-profit organizations, municipalities, students and educational institutions. The engagement process involves identifying stakeholder interests, addressing concerns and maintaining open communication with affected groups. Through its subsidiary, EFN Ekonomikanalen, the Bank supports independent journalism and knowledge sharing on financial and social issues in communities. Additionally, the Bank has made a whistleblowing system available on its website for anyone to submit a report anonymously.<sup>109</sup></li> <li>▶ Handelsbanken's sector-specific guidelines for forestry and farming require companies to respect the customary land use rights of Indigenous populations and ensure that natural resource extraction is conducted in consultation with local communities and other stakeholders concerned.<sup>110</sup></li> </ul>

<sup>99</sup> Handelsbanken, "Guidelines for Handelsbanken's Offering within Forestry and Farming", at: <https://www.handelsbanken.com/tron/xggu/info/contents/v1/document/72-97678>

<sup>100</sup> Handelsbanken, "Environment and Climate Change – Handelsbanken's Guidelines", (2024), at: <https://www.handelsbanken.com/tron/xggu/info/contents/v1/document/72-97675>

<sup>101</sup> Government of Sweden, "Work Environment Act", at: <https://www.government.se/government-policy/labour-law-and-work-environment/19771160-work-environment-act-arbetsmiljolagen/>

<sup>102</sup> Government of the UK, "Health and Safety at Work etc. Act 1974", at: <https://www.legislation.gov.uk/ukpga/1974/37/contents>

<sup>103</sup> Norwegian Labour Inspection Authority, "Working Environment Act - Act relating to the working environment, working hours and employment protection, etc.", (2024), at: <https://www.arbeidstilsynet.no/en/laws-and-regulations/laws/the-working-environment-act/>

<sup>104</sup> Government of the Netherlands, "Arbeidsomstandighedenwet", at: <https://wetten.overheid.nl/BWBR0010346/2022-05-2>

<sup>105</sup> Government of the Netherlands, "Arbeidsomstandighedenbesluit", at: <https://wetten.overheid.nl/BWBR0008498/2023-01-01>

<sup>106</sup> Government of the Netherlands, "Arbeidsomstandighedenregeling", at: <https://wetten.overheid.nl/BWBR0008587/2023-01-01>

<sup>107</sup> Government of the Netherlands, "Besluit risico's zware ongevallen 2015", at: <https://wetten.overheid.nl/BWBR0036791/2015-07-08>

<sup>108</sup> Government of the Netherlands, "Regeling risico's zware ongevallen", at: <https://wetten.overheid.nl/BWBR0037692/2016-03-04>

<sup>109</sup> Handelsbanken, "Annual and Sustainability Report 2024", at: <https://www.handelsbanken.com/tron/xggu/info/contents/v1/document/72-263272>

<sup>110</sup> Handelsbanken, "Guidelines for Handelsbanken's Offering within Forestry and Farming", at: <https://www.handelsbanken.com/tron/xggu/info/contents/v1/document/72-97678>

---

**Business ethics and predatory lending**

- ▶ Handelsbanken's Policy for Ethical Standards sets out procedures to prevent, identify and manage unethical business practices, including bribery, corruption, market manipulation and insider trading. It also provides guidance for employees and other stakeholders on reporting fraud and other irregularities.<sup>111</sup>
  - ▶ The Bank addresses predatory lending by promoting responsible lending practices and protecting customers from financial hardship due to over-indebtedness. Handelsbanken ensures that all credit agreements and related customer information are clear, objective and accurate to enable informed decision-making. The Bank also has a complaint-handling process to resolve issues related to customer lending.<sup>112</sup>
  - ▶ The Bank's Policy for Managing Conflict of Interest establishes internal procedures to identify and address potential conflicts of interest involving employees, customers, suppliers and business partners.<sup>113</sup> The Policy on Measures against Financial Crime outlines internal controls, designated responsibilities and training activities to prevent financial crime, including money laundering, terrorist financing, fraud, tax evasion and breaches of international sanctions.<sup>114</sup>
- 

<sup>111</sup> Handelsbanken, "Policy for Ethical Standards in the Handelsbanken Group", (2025), at: <https://www.handelsbanken.com/tron/xgpu/info/contents/v1/document/72-95817>

<sup>112</sup> Ibid.

<sup>113</sup> Handelsbanken, "Policy for Management of Conflict of Interest in the Handelsbanken Group", (2025), at: <https://www.handelsbanken.com/tron/xgpu/info/contents/v1/document/72-95820>

<sup>114</sup> Handelsbanken, "Policy for the Handelsbanken Group on Measures against Financial Crime", (2025), at: <https://www.handelsbanken.com/tron/xgpu/info/contents/v1/document/72-95819>

## Annex 1: Assessment Framework Overview

The following is a brief overview of the [Assessment Framework](#) that we use to assess debt instruments and the frameworks that support them. Using this Assessment Framework, we provide two key signals in our Second Party Opinions: **Principles Alignment** and **Sustainability Contribution**.

**Principles Alignment** indicates a framework's alignment with the requirements of applicable sustainable debt market Principles.<sup>115</sup> This assessment is structured according to the four components of the Principles: Use of Proceeds, Project Evaluation and Selection, Management of Proceeds and Reporting. Principles Alignment is expressed at one of following levels:

- ▶ **Aligned:** Meets all requirements across the four components.
- ▶ **Partially Aligned:** Meets requirements on two or three of the four components.
- ▶ **Not Aligned:** Does not meet requirements on most or all of the four components.

In addition, we provide commentary on any shortcomings as well as best practices.

Sustainability Contribution provides a clear and comparable signal of the expected contribution of the use of proceeds to one or more environmental or social objectives. We assess each expenditure defined in a framework by looking at the activities, assets and projects that they finance. This assessment is carried out using a set of factors that we have identified as driving the expenditure's contribution to a primary objective as well as its avoidance of harm to other objectives. The assessment results in one of the four levels of Sustainability Contribution described in the table below.

We determine the average contribution of the expenditures within each use of proceeds category (as defined by the issuer) to produce an expected Sustainability Contribution for each category. We then aggregate across categories to determine the Sustainability Contribution of a framework overall. In most cases, weight is distributed equally across use of proceeds categories. However, we adjust the weighting if information regarding percentage allocation is provided by the issuer.

Level of Sustainability Contribution	Description
	The expenditure finances an activity that makes a strong contribution to an environmental or social objective. The activity is well aligned with credible standards; there are no significant lock-in risks; and the risk of negative impact to other sustainability objectives is low.
	The expenditure finances an activity that makes a significant positive contribution to an environmental or social objective while having minor shortcomings compared to a strong contribution. This is either because the activity falls somewhat short of credible standards; there is some risk of lock-in (in the case of some environmental activities); there is a risk of negative impact to other sustainability objectives; or there is some ambiguity in the criteria for the expenditure.
	The expenditure finances an activity that represents a step towards an environmental or social objective but has substantial shortcomings compared to expenditures that make a strong contribution. Although the activity will result in benefit over a relevant baseline, either it falls substantially short of credible standards; there is significant risk of lock-in; there is significant ambiguity in the criteria; or there is a risk of significant negative impact to other sustainability objectives.
	The expenditure finances an activity that entails no net positive contribution to environmental or social objectives. Even in cases where there is some positive contribution to an objective, this is offset by shortcomings in other areas. Alternatively, the eligibility criteria may be unclear to the extent that contribution cannot be determined.

<sup>115</sup> These primarily include the Green Bond Principles and the Social Bond Principles, published by the International Capital Market Association (ICMA); and the Green Loan Principles and the Social Loan Principles, published by the Loan Syndications and Trading Association, the Loan Market Association, the Asia Pacific Loan Market Association (LSTA-LMA-APLMA), and the Association of Southeast Asian Nations (ASEAN).

---

## Scope of Work and Limitations

This Second-Party Opinion provides a point-in-time independent opinion of the Framework as of the Evaluation Date. Our opinion may consider additional documentation and information that the Framework owner may have provided during the engagement, in addition to public and non-public information. The owner refers to the entity featuring as an issuer, borrower, special-purpose vehicle or any other entity as described in the Framework.

As part of this engagement, we communicated with representatives of the Framework owner, who acknowledge that: i) it is the sole responsibility of the Framework owner to ensure that the information provided is complete, accurate and up to date; ii) they have provided us with all of the relevant information; and iii) that all of the information has been provided in a timely manner.

This Second-Party Opinion provides our opinion of the Framework and should be read in conjunction with that Framework. Any update of this Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and the Framework owner.

Our Second-Party Opinion provides our opinion on the alignment of the Framework with current market standards and practice but provides no guarantee of alignment nor warrants alignment with future versions of any such standards. In addition, it does not guarantee the realized allocation of proceeds towards eligible activities.

No information provided in this Second-Party Opinion shall be considered as being a statement, representation, warrant or argument in favour or against the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that the Framework owner may have made available to Sustainalytics for the purpose of this Second-Party Opinion.

## Disclaimer

### **Copyright ©2025 Sustainalytics, a Morningstar company. All rights reserved.**

The information, methodologies, data and opinions contained or reflected herein (the "Information") are proprietary to Sustainalytics and/or its third-party content providers and may be made available to third parties only in the form and format disclosed by Sustainalytics. The Information is not directed to, nor intended for distribution to or use by India-based clients and/or users, and the distribution of Information to India resident individuals and entities is not permitted.

The Information is provided for informational purposes only and (1) does not constitute an endorsement of any product, project, investment strategy or consideration of any particular environmental, social or governance related issues as part of any investment strategy; (2) does not constitute investment advice nor recommends any particular investment, nor represents an expert opinion or negative assurance letter; (3) is not part of any offering and does not constitute an offer or indication to buy or sell securities, to select a project nor enter into any kind of business transaction; (4) is not an assessment of the economic performance, financial obligations nor creditworthiness of any entity; (5) is not a substitute for professional advice; (6) has not been submitted to, nor received approval from, any relevant regulatory or governmental authority. Past performance is no guarantee of future results.

The Information is based on information made available by third parties, is subject to continuous change and no warranty is made as to its completeness, accuracy, currency, nor the fitness of the Information for a particular purpose. The Information is provided "as is" and reflects Sustainalytics' opinion solely at the date of its publication.

Neither Sustainalytics nor its third-party content providers accept any liability in connection with the use of the Information or for actions of third parties with respect to the Information, in any manner whatsoever, to the extent permitted by applicable law.

Any reference to third party content providers' names is solely to acknowledge their ownership of information, methodologies, data and opinions contained or reflected within the Information and does not constitute a sponsorship or endorsement of the Information by such third-party content provider. For more information regarding third-party content providers visit <http://www.sustainalytics.com/legal-disclaimers>.

Sustainalytics may receive compensation for its ratings, opinions and other services, from, among others, issuers, insurers, guarantors and/or underwriters of debt securities, or investors, via different business units. Sustainalytics maintains measures designed to safeguard the objectivity and independence of its opinions. For more information visit Governance Documents or contact [compliance@sustainalytics.com](mailto:compliance@sustainalytics.com).

This deliverable, in particular the images, text and graphics contained therein, and the layout and company logo of Sustainalytics are protected under copyright and trademark law. Any use thereof shall require express prior written consent. Use shall be deemed to refer in particular to the copying or duplication of the opinion wholly or in part, the distribution of the opinion, either free of charge or against payment, or the exploitation of this opinion in any other conceivable manner.

The issuer is fully responsible for certifying and ensuring the compliance with its commitments, for their implementation and monitoring.