Skandinaviska Enskilda Banken AB
Green Bond Second Opinion

January 26, 2022

Skandinaviska Enskilda Banken AB ("SEB") is a northern European financial services group and a pioneer in the green bond market. The bank is present in some 20 countries. In 2008, it collaborated with the World Bank to create the world's first green bond for institutional investors and SEB has since played a significant role in green bond developments worldwide. It issued its own green bond in 2017 and the majority of green bond proceeds so far have been invested in renewable energy (mostly wind) and green buildings.

SEB's new green bond framework marks a change from the bank's previous framework in that more categories and more lenient criteria have been included. SEB has informed us that this is because they wish to (largely) align their criteria to the the technical criteria for substantial contribution to climate change mitigation of the EU Taxonomy. A second reason is that the bank wishes to engage with sectors and customers who may not yet be at an advanced stage of their transition to a low-carbon business model and who the bank wishes to support in their transition. As a result, SEB's framework categories receive a Medium Green shading overall but include Light Green as well as Dark Green project categories. To ensure ambitious outcomes, we recommend that SEB continue to review and tighten the criteria for eligible projects as new technologies become available.

The framework contains ten categories, including sustainable water and wastewater management, clean transportation, and energy efficiency– however the majority of proceeds are likely to go towards renewable energy and green buildings. CAPEX and R&D expenditures are eligible, and both new financing and refinancing are allowed. The ambition level of the green buildings category is mostly aligned with key EU Taxonomy's mitigation criteria, but investors should be aware that this could open up for financing buildings which are no better than regulation. Given the sector's contribution to GHG emissions and the likely prominent share of financing in the issuer's framework, this is a concern.

The bank has strong sustainability credentials and ambitions - as reflected in an overall Excellent governance score. For example, it is developing climate risk and resiliency tools for its customer screening processes, and targets for Scope 3 portfolio emission reductions are expected in 2022. Yet it should also be noted that the bank is still financing upstream oil&gas activities, although it has set targets to reduce this exposure. Its green bond selection and reporting plans are sound and based on many years of experience. However its emphasis – for some project categories – on the green bond committee's discretion in selecting projects over the imposition of thresholds opens up for the possibility of investments which may be lacking in ambition. This is a pitfall, and we encourage SEB to be demanding and transparent in its approach.

Based on the overall assessment of the projects that will be financed under this framework, governance and transparency considerations, SEB's green bond framework receives a **CICERO Medium Green** shading and a governance score of **Excellent**. We encourage SEB to continue the important work of quantifying the emissions associated with its financing activities, to consider tightening the criteria for the eligible categories (especially green buildings) and implementing a more systematic approach to life cycle considerations (e.g. by undertaking a ranking of projects based on a full LCA).

SHADES OF GREEN

Based on our review, we rate SEB's green bond framework **CICERO Medium Green.**

Included in the overall shading is an assessment of the governance structure of the green bond framework. CICERO Shades of Green finds the governance procedures in SEB's framework to be **Excellent**.

GREEN BOND PRINCIPLES

Based on this review, this Framework is found to be in alignment with the principles.

CICERO Medium Green

°CICERO Shades of Green

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1 Terms and methodology

This note provides CICERO Shades of Green's (CICERO Green) second opinion of the client's framework dated January 2022**.** This second opinion remains relevant to all green bonds and/or loans issued under this framework for the duration of three years from publication of this second opinion, as long as the framework remains unchanged. Any amendments or updates to the framework require a revised second opinion. CICERO Green encourages the client to make this second opinion publicly available. If any part of the second opinion is quoted, the full report must be made available.

The second opinion is based on a review of the framework and documentation of the client's policies and processes, as well as information gathered during meetings, teleconferences and email correspondence.

Expressing concerns with 'Shades of Green'

CICERO Green second opinions are graded dark green, medium green or light green, reflecting a broad, qualitative review of the climate and environmental risks and ambitions. The shading methodology aims to provide transparency to investors that seek to understand and act upon potential exposure to climate risks and impacts. Investments in all shades of green projects are necessary in order to successfully implement the ambition of the Paris agreement. The shades are intended to communicate the following:

CICERO Shades of Green	Examples
Dark green is allocated to projects and solutions that correspond to the long-term vision of a low carbon and climate resilient future. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Ideally, exposure to transitional and physical climate risk is considered or mitigated.	Wind energy projects with a strong governance structure that integrates environmental concerns
Medium green is allocated to projects and solutions that represent steps towards the long-term vision, but are not quite there yet. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Physical and transition climate risks might be considered.	Bridging technologies such as plug-in hybrid buses
Light green is allocated to projects and solutions that are climate friendly but do not represent or contribute to the long-term vision. These represent necessary and potentially significant short-term GHG emission reductions, but need to be managed to avoid extension of equipment lifetime that can lock-in fossil fuel elements. Projects may be exposed to the physical and transitional climate risk without appropriate strategies in place to protect them.	Efficiency investments for fossil fuel technologies where clean alternatives are not available

Sound governance and transparency processes facilitate delivery of the client's climate and environmental ambitions laid out in the framework. Hence, key governance aspects that can influence the implementation of the green bond are carefully considered and reflected in the overall shading. CICERO Green considers four factors in its review of the client's governance processes: 1) the policies and goals of relevance to the green bond framework; 2) the selection process used to identify and approve eligible projects under the framework, 3) the management of proceeds and 4) the reporting on the projects to investors. Based on these factors, we assign an overall governance grade: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.

2 Brief description of SEB's green finance framework and related policies

Skandinaviska Enskilda Banken AB ("SEB") is a northern European financial services group with a history dating from 1856. The Bank is present in some 20 countries worldwide, including Sweden, the Baltic countries, Denmark, Finland, Norway, Germany and the United Kingdom. SEB has recently decided to expand to Switzerland, Austria and the Netherlands. Its operating income in 2020 was SEK 49,717 million and it has around 15,000 employees.

SEB is a pioneer in the green bond market: In 2008, it collaborated with the World Bank to create the world's first green bond issuance for institutional investors and SEB has since gone on to play a significant role in green bond developments worldwide. As part of its funding strategy, SEB issued its own green bond of EUR 500 million in 2017. At the end of 2020, SEB's green loan portfolio amounted to SEK 25bn, an increase of almost SEK 12bn since 2017. The majority of SEB's green bond proceeds so far have been invested in renewable energy (of which almost 80% in wind energy projects) and green buildings.

Environmental Strategies and Policies

SEB is one of the founding signatories of the Net-Zero Banking Alliance (NZBA), which commits its members to set targets for reducing greenhouse gas emissions related to lending and investment activities which are in line with the Paris Agreement. SEB has committed to setting targets for 2030 and 2050 and will communicate these targets once it has established a baseline (expected in 2022).

The bank recognises that its key impacts on climate change is through its loan portfolio. Exposure towards the oil & gas and power generation sector constitute its main indirect emissions. A study from 2021 found that SEB is the second largest Scandinavian bank for lending and underwriting to companies engaged in fossil fuels[1]. In 2021, it conducted a review of its sector policy on fossil fuel which produced a roadmap for how the bank will phase out its exposure to coal and unconventional oil. A cap (in absolute terms) on exploration, production and oilfield services activities has existed since 2019 and is revised downwards annually. The ambition is for the phasing out of coal and unconventional oil to be completed by 2030 (2038 in Germany, in line with the German Coal Phase-Out Act). The bank has put in place a strategy of a gradual shift away from companies without a transition plan aligned with the Paris Agreement and an exit strategy for the offshore segment and has decided to abstain from providing dedicated financing to oil & gas activities in sensitive areas such as the Arctic.

SEB announced an updated sustainability strategy in November 2021, defined around a Carbon Exposure Index, a Sustainability Activity Index, and a Transition Ratio. The Carbon Exposure Index is a volume-based metric capturing the bank's fossil fuel credit exposure within the bank's energy portfolio. SEB's goal is to reduce the fossil credit exposure within the bank's energy portfolio, which includes power generation and distribution as well as oil and gas, by 45–60 % by 2030 compared with a 2019 baseline. According to SEB, the Carbon Exposure Index goal means that it will be in line with or outperforming the strictest 1.5 degree-aligned climate scenario assumptions provided by The Network of Central Banks and Supervisors for Greening the Financial System (NGFS).

[1]Source: Banktrack https://www.banktrack.org/article/annual_general_meeting_seb_how_close_is_sweden_s_biggest_fossil_fuel_financier_to_being_parisaligned

The Sustainability Activity Index is a volume-based metric capturing SEB's sustainability activities (such as volumes of sustainability-related lending and sustainable finance advisory). The ambition is to increase average activity 6–8 times by 2030 compared with a 2021 baseline.

Finally, the Transition Ratio is a volume-based ratio based on SEB's Customer Sustainability Classification Model. SEB is in the process of assessing its corporate customers' climate impact and alignment towards the goals set out in the Paris Agreement, by collecting its customers' emission data to and establishing an overview of the total carbon footprint of the credit portfolio. SEB aims to complete the customer sustainability classification during 2022 when the bank will also report the indirect emissions and communicate goals of how this will reduce emissions until 2030, an intermediate target towards net zero emissions in 2050. This procedure is in line with the commitment that SEB has made by joining NZBA. The tool is used by SEB to engage with corporate customers about their decarbonisation strategies.

SEB has worked on lowering its direct emissions since 2008, by measuring and reducing its carbon footprint from energy consumption, use of paper, company cars and business travel. Between 2008 and 2019, emissions were reduced by 55%. The long-term ambition is to reduce the bank's carbon emissions to 'close to zero' in 2045. Milestones include a reduction of carbon emissions, compared with 2008, of 66 % by 2025 and 75 % by 2030. Through climate compensation (offsets), the bank will reach a net effect of zero already from 2021.

In addition to its sustainability strategy (updated November 2021 and referenced above) SEB has an environmental policy, corporate sustainability governance instruction and SEB's position statements, as well as sector policies (on forestry, fossil fuels, etc.). Its code of conduct for suppliers includes a requirement for climate change targets. The bank has joined or publicly endorsed the UN Global Compact, the UNEP FI Principles for Responsible Banking, the Principles for Responsible Investments (PRI), the Equator Principles, the Task Force on Climate-related Financial Disclosures (TCFD), the Poseidon Principles and Responsible Ship Recycling Standards.

Reporting: SEB produces an integrated Annual and Sustainability Report. The reporting is in accordance with the EU's Non-Financial Reporting Directive (NFRD), Global Reporting Initiative (GRI)'s core option and aligned with the TCFD (Task Force on Climate-related Financial Disclosures) and UNEP FI Principles for Responsible Banking (PRB).

Risk & resiliency: SEB incorporates ESG risks in credit assessments and customer selection processes – for instance it assesses social and climate impacts before accepting new customers. It is in the process of developing a suite of tools for integrating the assessment of both physical and transition risk in the financial analysis of corporate customers, including a methodology to quantify climate-related risks within its stress-testing framework and the overall process of ensuring capital adequacy. A methodology for assessing the physical and transition risks of corporate and real estate customers under various climate scenarios has been developed and it carried out a pilot of the effect of sea level rises on real estate portfolios in 2021.

Use of proceeds

SEB will use the proceeds from Green Bonds to finance, exclusively, eligible green assets that correspond to the long-term vision of a low carbon and/or environmentally sustainable society. An amount equal to the proceeds of the Green Bonds will, in whole or in part, finance or refinance eligible green assets, in each case as determined by SEB in accordance with the criteria defined in its Framework.
The framework enables financing of capital expenditures for the construction, installation, manufacture, expansion, upgrade and renovation of eligible green assets as well as the financing of related research & development.

In all cases, eligible green assets must meet the eligibility criteria set out in Table 1 as well as SEB's sustainability policy framework including its sector policies. Eligible green assets can either make a substantial contribution towards a low-carbon and/or environmentally sustainable society themselves, or directly enable others to make a substantial contribution towards a low-carbon and/or environmentally sustainable society. The following categories are included: Renewable energy, energy efficiency, pollution prevention and control, environmentally sustainable management of living natural resources and land use, terrestrial and acquatic biodiversity, clean transportation, sustainable water and wastewater management, adaptation,circular economy and green buildings.

Both refinancing and new financing is permitted. Refinancing is defined as the financing of assets that were finalised and taken into operation more than a year before their selection. The Framework does not define a specific look-back period, although loan tenor and an asset's lifetime are considered by the ESPS Committee at the selection stage. In addition to the eligibility criteria of this framework, all loans must be in line with the sustainability and sector policies of the bank.

Selection

The selection process is a key governance factor to consider in CICERO Green's assessment. CICERO Green typically looks at how climate and environmental considerations are considered when evaluating whether projects can qualify for green finance funding. The broader the project categories, the more importance CICERO Green places on the governance process.

SEB's Environmental and Sustainability Product Steering Committee (the "ESPS Committee") evaluates and selects Eligible Green Assets in line with the criteria defined in this Framework and SEB's sustainability policy framework. All potential assets must also undergo SEB's regular credit processes, where sustainability is an essential part of the assessment process. Potential assets with a fossil component undergo a screening process to exclude those with high risk of lock-in or rebound effects. The ESPS Committee meets on a regular basis and is comprised of representatives from Treasury, Sustainable Banking, Lending Divisions and Business Control. The ESPS Committee is chaired by SEB's Environmental Function and the Environmental Function has the right to veto any potential Eligible Green Asset.

The ESPS Committee may refrain from including an asset even if it meets the eligibility criteria into the Eligible Green Asset Portfolio, for example due to insufficient indications that net, long-term environmental impacts will be positive (for instance, as indicated by life-cycle considerations), or the risk that significant harm is done to other sustainability objectives (environmental as well as social), or for purely practical reasons (e.g. inadequate monitoring systems).

The Committee is responsible for monitoring that eligible green assets remains aligned with the criteria: if it comes to the attention of the ESPS Committee that an asset no longer meets certain eligibility criteria, the asset will be removed from the eligible green asset portfolio.

Management of proceeds

CICERO Green finds the management of proceeds of SEB to be in accordance with the Green Bond Principles.

To monitor the proceeds from Green Bonds, SEB has established an Eligible Green Asset Portfolio. The proceeds will be earmarked against the Eligible Green Asset Portfolio and will be monitored within the internal systems of the bank. The Eligible Green Asset Portfolio will be reviewed regularly by the Environmental and Sustainability Product Steering Committee to account for any re-allocation, repayments or drawings on the Eligible Green Assets

within the portfolio. On a quarterly basis any such amounts will be adjusted to reflect amounts advanced for the financing and any repayment or prepayment of Eligible Green Assets in the immediately preceding quarterly period.

SEB will only issue new green bonds when the Eligible Green Asset Portfolio exceeds the total amount of outstanding green bonds from SEB including the potential new issuance. In the unlikely event that the full amount of outstanding green bonds is not matched by the Eligible Green Asset Portfolio, any unallocated proceeds would be handled in the same way SEB manages its liquidity reserves – which typically means placed with the central bank or invested in triple-A rated securities such as government bonds. SEB intends to have a significant buffer of eligible investments.

Reporting

Transparency, reporting, and verification of impacts are key to enable investors to follow the implementation of green finance programs. Procedures for reporting and disclosure of green finance investments are also vital to build confidence that green finance is contributing towards a sustainable and climate-friendly future, both among investors and in society.

SEB will report annually on the allocation of proceeds from green bonds as well as, on a best effort basis, on expected or actual outputs and/or environmental impacts of the Eligible Green Asset Portfolio in a Green Bond Investor Report. The Green Bond Investor Report will also provide, on a best effort basis, information on the alignment of the Eligible Green Asset Portfolio with the EU Taxonomy's (December 2021) technical screening criteria for substantial contribution.

Where confidentiality agreements, competitive considerations, or a large number of underlying projects limit the amount of detail that can be made available, information may be presented on an aggregated portfolio basis or in generic terms.

The Green Bond Investor Report will be published on an annual basis and made available on SEB's webpage. The reporting will take guidance from the most recent version of the Nordic Public Sector Issuers' Position Paper on Green Bonds Impact Reporting, as well as the most recent version of ICMA's Harmonized Framework for Impact Reporting Handbook. The methodology for deriving the impact indicators will be outlined in the Green Bond Investor Report.

The allocation report will give an overview of the distribution between categories and across geographies, and disclose any unallocated proceeds and the distribution between new financing and refinancing.

The impact report will aim to disclose environmental impacts where feasible and subject to data availability and on a best effort basis. Impact reporting will be based on SEB's financing share of each Eligible Green Asset. The Framework contains a list of example indicators (by category).

An external auditor will provide a limited assurance on the allocation report and on the processes/systems underpinning the framework, and this assurance will be included in the Green Bond Investor Report.

3 Assessment of SEB's green bond framework and policies

The framework and procedures for SEB's green bond investments are assessed and their strengths and weaknesses are discussed in this section. The strengths of an investment framework with respect to environmental impact are areas where it clearly supports low-carbon projects; weaknesses are typically areas that are unclear or too general. Pitfalls are also raised in this section to note areas where SEB should be aware of potential macro-level impacts of investment projects.

Overall shading

Based on the project category shadings detailed below, and consideration of environmental ambitions and governance structure reflected in SEB's green bond framework, we rate the framework **CICERO Medium Green.**

Eligible projects under the SEB's green bond framework

At the basic level, the selection of eligible project categories is the primary mechanism to ensure that projects deliver environmental benefits. Through selection of project categories with clear environmental benefits, green bonds aim to provide investors with certainty that their investments deliver environmental returns as well as financial returns. The Green Bonds Principles (GBP) state that the "overall environmental profile" of a project should be assessed and that the selection process should be "well defined".

The table below details the eligible categories in SEB's framework. Based on experience so far, SEB expects around half of the approved portfolio to relate to renewable energy and one-third to green buildings. Nordic projects are expected to dominate, with around 80% in the Nordics and 20% primarily in other home markets, including the Baltics, Germany and the UK. The split between new financing and refinancing has so far been around 85/15.

Category	Eligible project types	Green Shading and some concerns
Renewable energy	Renewable energy production facilities, supporting infrastructure, technologies and solutions, including from the following renewable sources: • Solar energy (photovoltaic, concentrated solar power, and solar thermal heating). • Wind power (offshore and onshore). • Ocean energy. • Geothermal (where life-cycle GHG emissions are lower than 100g CO2e/kWh). • Hydropower, where the facility complies with one of the following:	**Dark Green** ✓ SEB has clarified that they expect the category to be dominated by wind assets, followed by solar and hydro. Growth is mainly expected in wind and solar. ✓ The issuer is applying widely used screening criteria for e.g. geothermal and hydropower which ensure that these will be aligned to the EU Taxonomy criteria (life-cycle GHG emissions lower than 100gCO2e/kWh). However, emission intensities vary by country and applying the EU threshold in a

-the facility is a run-of-river plant and does not have an artificial reservoir; -the power density of the facility is above 5W/m2; -the life-cycle GHG emissions are lower than 100gCO2e/kWh.	✓	Swedish context – where the grid's emission intensity is currently 8.8 gCO2e/kWh - would in fact imply a substantial increase in emissions[2]. Increasing the share of renewable energy in national electricity mixes is an essential part of achieving the transition to a low-carbon economy, however as with any new construction they have impacts on biodiversity, landscapes and local communities and care should be taken to minimise these.
• Bioenergy; biomass, biogas and biofuels. • Hydrogen; the manufacture of equipment for the production and use of green hydrogen, the production of green hydrogen. • Ammonia; the production of ammonia from green hydrogen and/or ammonia recovered from waste water.	✓	Geothermal projects can be a source of heavy metal and other pollution. Moreover, high GHG emissions can occur, especially during malfunctions or abnormal operation periods. SEB has clarified that it only finances projects which have undergone and Environmental Impact Assessment and received the appropriate permits, however investors should be aware that in contrast to other technologies such as wind and solar, geothermal can have material GHG emissions.
	✓	The issuer has clarified that for bioenergy, food-and feed crops are not permitted for the manufacture of biofuels and that the feedstock will be waste-based. Where appropriate, SEB inquires about FSC certification. Waste-based biomass is considered best-practice.
	✓	Hydropower projects may imply land-use conflicts, resettlement and disturbance of livelihoods, and negative health effects for affected communities. Some hydropower facilities can have significant GHG emissions. However, by limiting the size as well as likely location (Europe) and by applying the bank's sustainability policies and additional selection committee discretion, these risks are considered to be mitigated.

[2] Source: https://www.eea.europa.eu/data-and-maps/indicators/overview-of-the-electricity-production-4/assessment

		✓ The issuer has clarified that asset eligibility does not depend on the activities of downstream purchasers. This implies that (renewable) energy financed via this framework can be sold to fossil fuel instensive customers, although SEB has confirmed that electrification of oil and gas exploration facilities would not qualify. ✓ Hydrogen equipment production has been limited to green hydrogen (i.e. based on renewables). This is best practice and ensures more sustainable outcomes and lower risks than when permitting grey or blue hydrogen.
Energy efficiency  	The promotion of a low carbon and energy efficient society through both electrification as well as the improvement of energy efficiency through technologies and/or processes including, but not limited to, the following: • District heating/cooling distribution (where the system is using at least 50% renewable energy, 50% waste heat, 75% cogenerated heat or 50% of a combination of such energy and heat). • Energy storage (including, but not limited to, batteries, hydrogen storage, thermal energy storage, and pumped hydropower storage). • Production of heat/cool using waste heat. • Smart grid technology and/or infrastructure. • Energy efficient products, technologies, and processes. Including energy efficient equipment for buildings (e.g. insulation, LED lighting and HVAC (heat, ventilation and air conditioning), instruments for measuring and controlling the energy performance of buildings, etc.). • Retrofitting of supporting infrastructure for the transmission and distribution of electricity. • Energy efficient electric heat pumps where the Global Warming Potential does not exceed 675.	**Medium to Light Green** ✓ SEB has not established a minimum improvement threshold for the "energy efficiency" category as a whole as it argues that what characterises ambition will vary greatly from one category/use to another. Instead, the selection committee will review each potential case to establish whether the efficiency improvement is ambitious with the aim of achieving best market standards and avoiding lock-in and rebound effects. This is a pragmatic approach, but opens up for the possibility that small improvements could qualify. The IEA's latest update states that energy efficiency has to improve by at least 4% per annum between 2020 and 2030 to be compatible with the *Net Zero Emissions by 2050* Scenario[3] ✓ For efficiency upgrades of district heating/cooling, only the distribution of such energy is eligible (not the generating facility itself). ✓ The issuer has clarified that transmission and distribution lines will not be dedicated to supporting fossil fuel exploration or power plants. It is possible that they will support emission

[3] IEA, Energy Efficiency 2021, https://iea.blob.core.windows.net/assets/9c30109f-38a7-4a0b-b159-47f00d65e5be/EnergyEfficiency2021.pdf

	• Green iron and steel produced with green hydrogen. • Data-driven solutions for GHG emissions reductions.		intensive customers, however SEB will take into account life-cycle considerations when selecting projects to 'ensure there is a substantial net-positive effect on the environment'. ✓ SEB has not imposed a maximum emission factor for retrofitted grids. ✓ Heat pumps tend to have much lower GHG emissions than many alternatives when it comes to heating, however they usually use refrigerants in the process which release HFC gases. SEB's criteria of max Global Warming Potential of 675 for heat pumps is in line with EU Taxonomy thresholds but is probably a threshold which should be tightened over time in line with technology developments. ✓ SEB has explained that data driven solutions projects could include 5G, AI and other IT solutions which can provide substantial life-cycle GHG emission savings potential.
Pollution prevention and control	The management of waste in a responsible and environmentally friendly way, as well as the abatement of greenhouse gas emissions and other pollutants. • Waste management: such as the reduction of the amount of waste through process efficiency improvements, waste-to-energy and recycling facilities (where at least 50%, in terms of weight, of the waste is converted into secondary raw materials). • Emission and discharge reduction: the reduction of emissions and discharge to air, water and soil through physical, chemical and mechanical methods.	**Medium to Light Green**	✓ The issuer has clarified that both new facilities or existing facilities are eligible and that imported pre-sorted waste is permitted in these facilities. Due diligence will be carried out to ensure waste hierarchy principles are respected. ✓ Resource efficiency plays an important role in limiting GHG emissions. Recycling with a minimum secondary raw material conversion rate of 50% is in line with the EU Taxonomy requirements for material recovery from non-hazardous waste. ✓ Waste-to-energy facilities can be an effective way of disposing of waste but releases pollutants and emissions and can lead to excessive waste production at the expense of recycling. Waste management facilities often include some fossil fuel elements.

		✓ The issuer has clarified that waste-to-energy facilities may only be eligible where the energy recovery from waste follows a waste hierarchy to ensure that an 'ambitious' amount of the waste is reused and recycled and that life cycle aspects of waste transportation will be taken into consideration. This screening of waste-to-energy projects is positive, although without more specific thresholds it leaves the selection committee with a lot of discretion and outcomes which may or may not be ambitious. We encourage the issuer to engage in dialogue with its customers to continuously improve recycling rates.
Environmentally sustainable management of living natural resources and land use  	Environmentally responsible and socially beneficial management of natural systems including, but not limited to, sustainable forestry, where the forest land is certified in accordance with the Forest Stewardship Council (FSC) and/or the Programme for the Endorsement of Forest Certified (PEFC).	**Medium to Dark Green** ✓ FSC and PEFC are internationally recognized certification schemes for sustainable forestry management, although the stringency of the certification depends on the local version of the standard. In tropical countries where deforestation is a concern, the certification may or may not be a sufficient guarantee of sustainability. ✓ Forestry, even when 'sustainable' as indicated by a certification standard, will have impacts on nature, e.g. through the construction of roads and the use of fossil-fuel based maintenance machinery. ✓ The issuer has clarified that land which is at an advanced stage of certification (but not yet concluded) are also eligible. ✓ The issuer has clarified that projects are most likely to be located in Europe, however through loans to subsidiaries it is possible that forests may be located elsewhere. In those cases, the issuer will require that an environmental impact assessment be carried out. ✓ Best practice forestry management requires criteria for increases in carbon sinks and the measurement of GHG baselines.

		✓ The issuer has clarified that in addition to forestry projects, this category could include the establishment of biotopes.
Terrestrial and acquatic biodiversity 	The conservation, preservation and/or restoration of nature and biodiversity, as well as natural habitats and ecosystems including, but not limited to the following: • The protection and restoration of coastal, marine and watershed environments. • Restoration of damaged habitats (e.g. reforestation using drones, restoration of disused production areas). • The conservation and restoration of forests and woodlands. • Protection and preservation of biodiversity and natural ecosystems.	**Dark Green** ✓ The issuer has clarified that projects in this category could be located in SEB's homemarkets (Nordics, Europe) or in locations elsewhere when co-sponsored by development organisations such as the World Bank or Sida. ✓ If control/eradication of invasive species is included in these measures, care should be made to avoid chemical and mechanical control methods which cause damage to the wider environment.
Clean transportation 	Zero emission and low carbon transport solutions for public, passenger and freight, passenger and public purposes, including: • Rail transport, where the trains, wagons and coaches have zero direct (tailpipe) CO2 emissions. • Road transport; zero direct (tailpipe) CO2 emissions vehicles, as well as public transport vehicles that run on biofuels and/or other renewable fuels. • Water transport; vessels that have zero direct (tailpipe) CO2 emissions. • Any relevant supporting infrastructure, including: -Infrastructure dedicated to non-motorized mobility, e.g. bike lanes; -Electrical charging and hydrogen refuelling stations and installations;	**Dark Green** ✓ The issuer's criteria of zero tailpipe emissions for most categories is in line with best practice and is ambitious. ✓ Moreover, SEB has clarified that non-electrified railtrack projects are not eligible. ✓ Public transport running on biofuels is permitted. We understand from SEB that their biofuels policy (on sustainable sourcing) will extend to this catgegory through scrutiny of offtake agreements. The issuer has clarified that transport solutions dedicated to the transport or storage of fossil fuels are excluded.
Sustainable water and wastewater management 	The management of water and/or wastewater in a sustainable way including, but not limited to, the following: • Water and/or wastewater collection, treatment and supply systems. • Improved water efficiency through reduced leakage. • Plants and/or systems which are substituting more GHG-intensive treatment systems (such as septic tanks, anaerobic lagoons)	**Medium to Dark Green** ✓ The issuer has clarified that facilities at oil refineries or fracking facility would not be considered in this category. Fossil-intensive industry customers could qualify, but would have to undergo scrutiny by the selection committee on life-cycle, lock-in and rebound aspects. ✓ Most projects will be located in Europe where the application of EIAs and/or

	• Other sustainable water and/or wastewater management measures including, water purification, water saving, water conservation and the re-use of water.	regulatory guidelines will lower the risks related to impacts on biodiversity, excessive overflows etc. which are otherwise associated with this category. If outside the home geographies, the selection committee's additional screening and SEB's sustainability policies will mitigate risks. ✓ Investors should be aware that in some geographies wastewater treatment and water purification facilities run on fossil fuels and can be a source of GHG emissions. In SEB's home markets, however, they tend to run on electricity (which is majority renewables based mix).
Climate change adaptation 	The enhancement of climate resilience through planning, piloting, testing and implementing relevant adaptation measures, with the objective of reducing the exposure of man-made and natural systems to the impacts of climate change.	**Medium Green** ✓ Eligibility is aimed to be in line with the requirements for substantial contribution to climate change adaptation in the EU Taxonomy (December 2021). ✓ The issuer has given measures to prevent flooding and storm water handling as project examples for this category. ✓ No formal restrictions are placed on the type of assets selected for resiliency measures. Hence, assets supporting fossil fuel use (such as roads, airports) are permitted but SEB has informed us that such assets are 'highly unlikely' to be selected. Increasing the resilience of such assets can prolong their lifetime and encourage lock-in ✓ Any construction activity can cause local pollution, and 'grey' infrastructure often cause GHG emissions through the use of cement and virgin materials. We encourage the use of 'green' – or natural infrastructure solutions whenever possible.
Circular economy	The promotion of resource efficiency and the transition towards a circular economy including through, but not limited to, the following:	**Medium Green** ✓ The issuer has clarified that examples of recycled materials include, e.g.,

	• Products, production technologies and processes where there is a significant reduction in the use of virgin materials and/or natural resources in one or more stages of the targeted life-cycle. • Plastic as a raw material and/or product, which is fully manufactured by the mechanical recycling of plastic waste. • Recycling of end-of-life batteries.	✓	metal, fabrics, packaging material and electronics. Although recyclying plastics is preferable to single-use plastics it should be noted that the material is produced from fossil fuels. The requirement of a 'significant reduction' without thresholds opens up for interpretation and outcomes which may or may not be ambitious. However, the issuer has clarified that the selection committee will seek to establish the exisitence of a second party opinion, or equivalent, demonstrating a 'significant' reduction in the use of virgin materials and evaluating rebound and life-cycle aspects. This extra screening is positive.
Green buildings	<u>New Buildings</u> • Where the Primary Energy Demand (PED), is or will be, at least 10% lower than the threshold set for the nearly zero-energy building (NZEB) requirements in national measures. The energy performance must be certified using an as built Energy Performance Certificate (EPC). <u>Existing Buildings</u> • Buildings built before 31 December 2020, where the building has an Energy Performance Certificate (EPC) class A, or the building has a primary energy demand (PED) which is within the top 15% of the national or regional building stock. • Renovations of existing buildings that either lead to a reduction in the primary energy demand (PED) of at least 30%, or where the building meets the applicable national and regional building regulations for "major renovation" according to the Directive 2010/31/EU.	**Light Green** ✓ ✓ ✓	The issuer has clarified that all kinds of buildings are eligible, but that it expects commercial real estate and residential multi-family buildings to make up the majority. The issuer's requirements for this category are aligned with the EU taxonomy's technical criteria for substantial contribution to climate change mitigation, provided that the buildings financed do not exceed 5000 m2. According to the issuer, a very limited amount of green loans would be for buildings larger than that (for taxonomy alignment, any such new buildings need to have a life cycle analysis done). This is useful to know for transparency and alignment purposes, however, it does not automatically imply sufficient ambition from a well- below-2° scenario perspective. SEB is imposing energy thresholds, and is thus targeting one of the most important climate change impact of buildings. However, the ambition level of the target for new buildings is uncertain because few countries have

defined 'nearly zero' at this stage. In some countries it may represent no more than current regulations. If so, a 10% improvement over that cannot be said to be at the level of ambition required by the Paris Agreement. In a long term perspective, Passive or Plus house technologies should become mainstream and the energy performance of existing buildings greatly improved.

✓ SEB has clarified that around 95% of its current green loan real estate portfolio is in Sweden and that in practice it will most likely be limited to European countries. This means that SEB's selection criteria most likely ensure a reasonable level of ambition, however, since the framework is open to other geographies there is no guarantee of such ambition.

✓ For existing buildings, the issuer will follow the guidance from national governments on how to calculate the "top 15%" if and when such guidance is published and in the meantime it will follow the guidance of industry-commissioned studies (which exist or are forthcoming in Norway and Sweden). SEB has clarified that in the absence of such guidance, it will not approve new green loans in this subsector. Based on a study commissioned by the Swedish Property Owners, the top 15% residential buildings have a primary energy demand of 75 kwh/m2 atemp per year, equivalent to an EPC A, B or C, while for non-residential buildings the threholds makes EPC A to C eligible, and potentially some EPC D. EPC C corresponds to what is required by current regulation. Based on this methodology, there is a risk that residential buildings only in line with regulation are financed, while non-residential might include buildings with energy performance below regulation. In order to achieve a Medium Green

	shading we are looking for measures which go beyond regulations.
	✓ The issuer is not requiring the application of any additional building criteria, such as LEED or BREEAM standards. Through this omission, the issuer is missing out on an opportunity to address concerns related to building materials, access to public transport and other environmental impacts. Also, SEB does not screen for a building's heating source or climate resiliency considerations, but has pointed out that these risks are lower in its target markets (Nordic countries) which tend to be heated by district heating or electricity (majority renewables based) and where planning authorities are tasked with considering resiliency aspects. The bank has also pointed out that through its customer screening work it engages its clients on many climate-related issues and tries to influence change that way rather than by screening out customers.
	✓ The issuer has clarified that if a renovated building meets the criteria for "Existing buildings", then the building as a whole can be classified as an "Eligible Green Asset". If the renovation does not bring the building within the specified criteria but results in a 30% reduction in the PED, then only the cost of the renovation can be classified as "green".

Table 1. Eligible project categories

Background

Financial institutions and banks are vital driving forces to reach the Paris Agreement and can provide leadership through the financing of activities necessary to reduce greenhouse gas emissions, engage customers in their low-carbon transitions, and adapt to a changing climate. Banks also have a significant role in managing climate risks. Having climate goals for the bank's operations and portfolio (including science-based targets), implementation of TCFD reporting, and climate risk assessment of their customers (as part of due diligence processes) represent best practice in the sector.

SEB's largest market is Sweden, and to a smaller extent the other Nordic countries and Northern Europe. As an EU member, Sweden is covered by the EU's climate targets of reducing greenhouse gas emissions by 40% by

2030 compared to 1990 levels, and related targets for the share of renewable energy and energy efficiency improvements. Sweden has developed a National Energy and Climate Plan (NECP) in which it outlines the targets and strategies in all sectors. These strategies include measures such as increasing renewable energy capacity, improving energy efficiency, facilitating the large scale implementation of clean transportation alternatives, and implementing carbon sinks through reforestation and the LULUCF sector. Sweden's current target for its non-ETS sectors, including transport, waste and buildings, is a 63 % decrease by 2030. The EU has increased its 2030 target to 55 %, and is currently working on a legislative package adapting the relevant regulations to the higher target.

The project categories likely to receive the majority of proceeds under SEB's framework are renewable energy – in particular wind and solar – and green buildings:

Green Buildings: The construction and real estate sector have a major impact on our common environment. According to the National Board of Housing, Building and Planning's environmental indicators, it accounts for 32% of Sweden's energy use, 31% of waste and 19% of domestic greenhouse gas emissions. Calculations from Sveriges Byggindustrier indicate that the climate impact of new production of a house is as great as the operation of the house for 50 years.

Sweden has as an objective to establish a fossil fuel-free Sweden by 2045[4]. In Sweden, the residential and service sectors account for almost 40% of the total energy use[5]. Housing and non-residential buildings accounted for approximately 90% of total end-use energy in the sector, just over 132 TWh in 2017[6]. Heating-related GHG emissions have been reduced since the transition from oil-based heating to district heating during the 1990s.

Renewable Energy: Sweden's 50 % renewables target for the share of total energy consumption was reached in 2020. For the electricity sector, the target is 100% by 2040. This will imply the phasing out of all nuclear power generation by the same time. In the same time period, power demand is expected to grow by 19%. More than half of this increase is driven by the electrification of transport, while a smaller share is driven by new data centers. The increase in renewable energy is likely to be met mostly by wind power.

EU Taxonomy

SEB's framework has been developed to be (broadly) aligned with the substantial contribution part of the technical screening criteria within categories covered by the EU Taxonomy (Delegated Acts, December 2021). Alignment with and deviations from the substantial contribution part of the technical screening criteria are described in an appendix to the framework. The Taxonomy's Do No Significant Harm and social safeguard criteria will not be followed in detail. CICERO Green's assessment does not cover the extent of alignment with the EU Taxonomy.

Governance Assessment

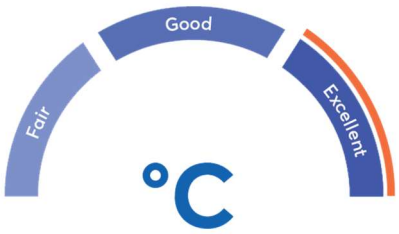
Four aspects are studied when assessing SEB's governance procedures: 1) the policies and goals of relevance to the green bond framework; 2) the selection process used to identify eligible projects under the framework; 3) the management of proceeds; and 4) the reporting on the projects to investors. Based on these aspects, an overall grading is given on governance strength falling into one of three classes: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.

The selection procedure is strong, based on several years' experience with the bank's previous green bond framework and active role as underwriter and participant in international green finance fora. This has allowed the

[4] https://fossilfrittsverige.se/en/start-english/
[5] Energimyndighetens webbshop (a-w2m.se)
[6] se_2020_ltrs_official_translation.pdf (europa.eu)

bank to gather best practice from numerous contexts. It includes life-cycle considerations and a veto right by the environmental function/specialist. Plans for reporting are in line with what would be expected from a financial institution and have been influenced by lessons learned – in terms of level of detail required by investors etc. – with SEB's previous green bond issuance.

SEB is a member of, or aligned to, the relevant international banking initiatives related to the green transition, such as NZBA and TCFD, and has -or is in the process of - setting GHG, decarbonization and fossil fuel divestment targets. It could, however, be more ambitious in its transition out of fossil fuel financing – e.g by setting goals which go beyond national targets in all of its markets of operation or by including more ambitious targets on phasing out oil&gas. The bank monitors its Scope 1 and 2 emissions and is in the process of mapping Scope 3 emissions from its customers – a process which is expected to be completed during 2022. The latter is a key opportunity for banks to influence a number of companies and sectors – and we commend SEB's forward-leaning work in this respect. SEB is also actively exploring climate risk tools and appears to be making progress in integrating these in customer screening and sustainability classification processes. The overall assessment of SEB's governance structure and processes gives it a rating of **Excellent**.



Strengths

SEB is a frontrunner and pioneer in green bonds, as reflected in its support for other issuers and expressed through its own issuances. This experience has resulted in a high level of expertise in the organisation, and sophistication in the way its green bond framework has been designed. For instance, at the selection stage projects are considered on a life-cycle basis and assessed for rebound and lock-in effects. This should provide investors with a high degree of confidence that funds will be put towards reasonably ambitious climate enhancing measures.

SEB's sustainability governance is excellent. The bank is a member of a number of international initiatives to support the 'greening' of the financial sector. It is developing approaches to estimate Scope 3 emissions from its portfolio and a customer sustainability classification tool for climate risk. Moreover, it has a conservative approach to the use of offsets.

Weaknesses

We have not identified any material weaknesses in the framework.

Pitfalls

For several of the project categories, SEB has chosen not to impose threshold criteria and instead rely on the experience and expertise of the ESPS Committee to screen projects. This may be a pragmatic approach which opens up for use of proceeds in innovative categories and with market-dependent ambition levels, however it equally leaves a lot of discretion to the committee and creates a risk of outcomes which are inconsistent or lack in ambition.

The ambition level of the green buildings category is aligned with the EU Taxonomy's mitigation criteria but is relatively weak and uncertain as it depends on further guidance from national governments. For instance, it is currently not clear how ambitious the top 15% of national or regional building stock will be and it is possible this will include buildings that are no better than regulations. This is particularly important as this category is likely to be one of the dominant ones in SEB's framework. Another generic threshold which in many contexts lacks

ambition is the 100g/tCO_2e for geothermal and hydropower. Low thresholds imply that SEB may miss out on opportunities to encourage customers further and achieve additional GHG reductions.

Some of the project categories allow for investments and improvements that could be associated with emission instensive sectors. Although some of these are aimed at climate benefits in the short run, they run the risk of creating lock-in effects and perpetuate the use of fossil fuels. SEB informed us that it has a process in place to avoid the risk of lock-in and screen out projects that could lead to rebound effects.

Appendix 1:
Referenced Documents List

Document Number	Document Name	Description
1	SEB - Green Bond Framework Jan. 2022	
2	Annual and Sustainability Report SEB 2020	
3	Corporate Sustainability Policy (including Sector Policies) for the SEB Group, 18 May 2021	
4	Environmental Policy for the SEB Group, 15 Nov 2018	
5	Code of Conduct for Suppliers to SEB Group, Feb 2021	
6	C29. Assessment of climate risks in the credit approval process	
7	Customer Acceptance Standards - excerpt	
8	Transition risk scenario analysis	
9	Instruction for the Sustainability Product Committee and its subcommittees in the SEB Group	
10	Template transition risk assessment	
11	SEB Green Bond Impact Report 2020	
12	Screening for a fossil component 2021	Description of SEB's decision making process for assets with a fossil component

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Green

Appendix 2:
About CICERO Shades of Green

CICERO Green is a subsidiary of the climate research institute CICERO. CICERO is Norway's foremost institute for interdisciplinary climate research. We deliver new insight that helps solve the climate challenge and strengthen international cooperation. CICERO has garnered attention for its work on the effects of manmade emissions on the climate and has played an active role in the UN's IPCC since 1995. CICERO staff provide quality control and methodological development for CICERO Green.

CICERO Green provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green bond investments. CICERO Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Green is independent of the entity issuing the bond, its directors, senior management and advisers, and is remunerated in a way that prevents any conflicts of interests arising as a result of the fee structure. CICERO Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

We work with both international and domestic issuers, drawing on the global expertise of the Expert Network on Second Opinions (ENSO). Led by CICERO Green, ENSO contributes expertise to the second opinions, and is comprised of a network of trusted, independent research institutions and reputable experts on climate change and other environmental issues, including the Basque Center for Climate Change (BC3), the Stockholm Environment Institute, the Institute of Energy, Environment and Economy at Tsinghua University and the International Institute for Sustainable Development (IISD).