°CICERO Shades of Green

Region Skåne
Green Finance Second Opinion

September 20, 2021

Region Skåne is a self-governing administrative region in the South of Sweden. It covers around 3% of Sweden's total area, but its population of 1.3 million comprises 13% of Sweden's total population. Region Skåne is responsible for healthcare services, public transport, regional development, and culture within the geographical boundaries of Skåne county.

The Green Finance Framework, covering the categories **Green buildings, Clean transportation, Energy efficiency, Renewable energy, Climate adaptation, Pollution & prevention control, and Eco-efficient and circular economy** is an updated version of a framework from 2016. Green buildings and Clean transportation are the main categories, expecting to use close to 80% and 20%, respectively, of the net proceeds. Eligible new green buildings are at least 25% more energy efficient than the level required by the applicable building regulation (BBR) or meet the requirement of at least Miljöbyggnad Silver or an equivalent certification scheme. For existing buildings, the requirements are one of the following: reduction of energy use on a m^2 basis of at least 30%, or an Energy Performance Certificate (EPC) with energy class A. Eligible transport project are zero emission vehicles and supporting infrastructure. Most of the proceeds will be used for new financing of eligible projects.

Region Skåne's governance structure is excellent, although the impact reporting is on a best effort basis and TCFD's guidelines are not formally implemented. Many of the elements of TCFD's guidelines are contained in the regular procedures of Region Skåne, but a more systematic use of climate scenarios to stress test against climate risks is recommended. Impact reporting is following the recommendations from the Nordic Public Sector Issuers Position Paper on Green Bonds Impact Reporting. Procurements are regulated by policies that secure and encourage green practices from subcontractors and suppliers. A further strength is the explicit exclusion of fossil fuel technologies. Fossil fuel fractions are also excluded from delivered district heating.

Region Skåne's framework supports the very high climate ambitions of the region, and all categories receive a Dark Green shading except the Green building category which receives a Medium Green shading. The expected dominant role of this category in future green financing makes the overall shading of the framework CICERO **Medium Green.** The framework could be strengthened by more stringent criteria for the Green building category and more systematic use of life cycle analyses in selecting projects and a systematic use of downscaled climate scenarios to stress test against climate risks. Region Skåne is also encouraged to include emissions related to material use, construction and demolition in the greenhouse gas accounting.

SHADES OF GREEN

Based on our review, we rate the Region Skåne's Green Finance 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 Region Skåne's framework to be **Excellent.**

GREEN BOND AND GREEN LOAN PRINCIPLES

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

°CICERO Medium Green

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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 May 2021**.** 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 Region Skåne's Green Finance Framework and related policies

Region Skåne is a self-governing administrative region in the South of Sweden. It was created in 1999 when Kristianstad County and Malmöhus County were merged. It covers around 3% of Sweden's total area, but its population of 1,3 million comprises 13% of Sweden's total population. Region Skåne is responsible for healthcare services, public transport, regional development, and culture within the geographical boundaries of Skåne county. The highest decision-making body within Region Skåne is the Regional Council Assembly with 149 elected members.

Region Skåne published a green bond framework in September 2016, which got a Dark Green shading from CICERO Green. This second opinion is an update of the previous version from September 2016.

Environmental Strategies and Policies

Region Skåne has in place ambitious environmental policies and goals that are broadly implemented in the organisation. High sustainability goals are established for areas connected to fossil fuels, climate neutrality, a healthy environment and efficient resource use. Region Skåne has since December 2018 had a fossil-fuel free public transportation fleet and 99.9% of the energy provided to buildings coming from renewable and fossil-fuel free energy sources.

Region Skåne has established an environmental program, spanning the period 2010-2020, and comprises an environmental policy and overarching goals related to a fossil fuel free, climate neutral and climate-adapted organisation, a healthy environment, sustainable resource use and a strong environmental profile. Furthermore, the issuer has established sub-goals to support the work reaching the main goals. The environmental goals are to be achieved by 2021 and are monitored and evaluated annually.

Region Skåne has recently started with 2018 and 2019 data reporting on greenhouse gas emissions according to the GHG protocol across scope 1, 2 and 3 emissions[1]. Scope 1 emissions were 9.6 $ktCO_2e$ in 2019, down from 16.7 $ktCO_2e$ in 2018. Public transport and medical gases from hospitals were the major contributors. Scope 2 emissions were considerably smaller at 0.01 and 0.3 $ktCO_2e$ in 2019 and 2018, respectively. The more uncertain scope 3 emissions, again mainly from the public transport and hospital sector, were estimated at 38.9 and 46.4 $ktCO_2e$ in 2019 and 2018, respectively. Thus, total emissions were reduced from 63.4 to 48.6 $ktCO_2e$ from 2018 to 2019. According to the issuer's annual report, the share of fossil fuel-free energy in real estate, internal transport and public transport increased from 96.0 to 99.7% between 2018 and 2019 and the issuer says they are well positioned to reach the goal of being fossil free within 2021.

Region Skåne does not formally follow the guidelines from TCFD when it comes to handling climate risks, but many aspects of the TCFD guidelines such as governance, risk management, target setting and strategy are embedded in the environmental management system procedures in Region Skåne. As there are many organisational levels within Region Skåne, they have their organisation specific tools and instructions for handling the aspects that are most relevant to their activities, including identification and management of risk and opportunities.

[1] Scope 3 emissions data (depending on category) will be reported to the extent that data are available or on a best effort basis. Currently, emissions from material use in construction is not reported, but work is in progress to extend the scope 3 reporting.

Region Skåne is in the process of developing their environmental program and targets towards 2030, and targets are related to:

- Resource efficient and circular economy
- Low climate impact
- Healthy environment

The issuer is certified according to the ISO 14001 environmental management system. In addition, Regionfastigheter (responsible for the associated remodelling, reconstruction, extension, retrofitting and new construction of Region Skåne's premises) is certified according to the ISO 50001 environmental management system. Regionfastigheter has decided to apply for membership in Sweden's green building council, Miljöbyggnad, as soon as possible. As a first step, building projects with a decided investment framework in excess of SEK 100 million should be certified. After evaluation, it will be decided whether projects under this amount also should be certified.

Furthermore, the issuer has developed several steering documents to support its work on environment, comprising i.a. an internal carbon pricing model for business trips, guidelines for waste prevention and a fuel strategy for the transition to renewable energy. Region Skåne intends to follow the development of the EU Taxonomy and the EU Green Bond Standard when they enter into force.

Region Skåne has also established a procurement policy and guiding instructions to support the implementation of the policy. The issuer sets high standards for green public procurement, implementing environmental criteria in all tenders and uses procurement demands as a tool to drive green and circular products and business-model development forward. The procurement policy has a special focus on the goal that the region will be free of fossil fuels by 2021. The procurement policy also addresses social and ethical requirements, stating that the region shall work to ensure that the goods and services purchased are produced under sustainable and responsible conditions, complying with relevant human rights declarations (e.g., the UN Universal Declaration of Human Rights, the ILO's eight core conventions and the UN Convention on the Rights of the Child). In procurements, where possible and of relevance, there are also increasing exploration of multiple-use products instead of single-use products. One example on the effect of the procurement policy provided by the issuer is a purchase framework agreement developed by Region Skåne that resulted in the share of single-use items available for purchase comprising of paper or bioplastics rose from 19 to 35 percent compared to the previous framework agreement in place.

Use of proceeds

Region Skåne will use green proceeds on new eligible projects and to finance renovations, retrofits and upgrades of existing eligible projects, as well as refinance existing projects (defined as projects older than 12 months). By "eligible projects" the issuer refers to a selected pool of projects that are funded, in whole or in part, by Region Skåne and that promote the transition to low carbon and climate resilient growth.

Eligible project categories include green buildings, clean transportation, renewable energy, energy efficiency, climate adaptation, pollution & prevention control, and eco-efficient and circular economy. The eligible project categories have been mapped to the Sustainable Development Goals (SDGs) in accordance with the High-Level Mapping to the Sustainable Development Goals published by ICMA. According to the issuer, 80% of the proceeds are expected to be used for finance of new projects, while refinance amount to 20%. A big part of the of ongoing investments are in new buildings, the issuer expects this share to slightly increase the next years. The issuer informs us that all refinancing of existing project has so far been used for projects in the category Clean transportation. Overall, approximately 80% of the proceeds is expected to go to the Green building category with most of the remaining proceeds for the category Clean transportation.

The issuer will exclude projects operating in exploration, exploitation, extraction, production or sale of fossil energy, projects concerning pornography, gambling, alcohol, tobacco or arms industries, and companies or projects that have violated any of the principles in the UN Convention on Human Rights.

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.

Region Skåne has established a Green Finance Committee (GFC) that will evaluate eligible projects against national law, guidelines, standards, and regulation as well as internal policies and instructions to make sure that eligible projects are selected in line with the established criteria. According to the issuer, the GFC can seek internal or external advice in that process or while making sure that no significant harm affect the environmental objectives defined in the EU Taxonomy on a best effort basis. Eligible projects must comply with minimum safeguards defined as procedures implemented by Region Skåne. When allocating net proceeds, decisions are made in consensus. The GFC will meet at least twice a year or when needed.

The GFC is comprised of staff from the Finance Department, the Environmental Department, Energy and sustainability experts at Regionfastigheter and Skånetrafiken. The GFC is also responsible for replacing investments that no longer meet the eligibility criteria (e.g., following divestment, liquidation, concerns regarding alignment of underlying activity with eligibility criteria etc.).

Supply chain considerations beyond the procurement policies or avoiding rebound effects are not typically part of the selection process. Neither is screening for potential controversial projects. Supply chain considerations have however been done to some extent for the new hospital building in Malmö.

So far, consequences of climate change at different scenarios have not been an explicit part of the selection criteria, but for buildings Regionfastigheter plan projects based on a set of national requirements. One example being the so called hundred-year return period for cloudbursts, as well as the dimensioning for outdoor temperatures used for heat load and heat power requirements. Analysis and planning are also carried out for local disposal of stormwater, with consideration for green roofs in order to reduce risks during heat waves or cloudbursts. Inventories of trees and conservation plans are also developed.

Life cycle assessments are rarely done, and are not part of the standard procedure.

Management of proceeds

CICERO Green finds the management of proceeds of Region Skåne to be in accordance with the 2018 Green Bond[2] and Green Loan Principles[3]. An amount equal to the net proceeds of green instruments raised will be credited to an earmarked account that will support Region Skåne's financing or refinancing of eligible projects. When green instruments are outstanding and the earmarked account has a positive balance, funds may be deducted from the earmarked account and added to Region Skåne's financing or refinancing in an amount up to all disbursements from that pool made in respect of eligible projects. The earmarked account ensures the monitoring

[2] International Capital Market Association. https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp/

[3] European Loan Market Association. https://www.lma.eu.com/application/files/9115/4452/5458/741_LM_Green_Loan_Principles_Booklet_V8.pdf

and tracking of the eligible projects. The earlier projects and investments have been allocated as individual disbursements. But moving forwards with new projects, these will be handled as a green portfolio.

The Finance Department is responsible for the allocation of proceeds. If, for any reason, an eligible project ceases to align with the requirements set out in the Green Finance Framework, such projects will be removed from the earmarked pool.

Unallocated proceeds will be placed in the liquidity reserves and managed as such and not allocated to companies or projects operating in exploration, exploitation, extraction, production or sale of fossil energy, to those that operate in the areas of pornography, gambling, alcohol, tobacco or arms industries, or to companies or projects that have violated any of the principles in the UN Convention on Human Rights.

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. Region Skåne will provide information on the allocation of proceeds and the non-financial impacts of eligible projects in the annual Green Bond Impact Report. The issuer is a signatory to the Nordic Public Sector Issuers Position Paper on Green Bonds Impact Reporting[4], and will commit to assessment and reporting of the project's selection and their expected non-financial impact in a transparent manner. The grid factor used in estimating greenhouse gas emissions and impacts of projects on those emissions, follows the recommendation in the position paper[5].

Allocation reporting will include information on the total amount of proceeds allocated to eligible projects, allocated amounts per eligible projects and category, the amount of unallocated proceeds and relevant impact indicators defined in the Nordic Public Sector Issuers Position Paper on Green Bonds Impact Reporting.

The impact reporting aims to disclose the environmental impact of eligible projects financed under the Green Finance Framework, based on Region Skåne's financing share of each eligible projects[6]. Region Skåne will strive to report on the environmental impacts of eligible projects financed by green finance. When feasible and subject to data availability, the issuer will report the expected impact (ex-ante) and strive to report on actual impact (ex-post). If the reporting is including both ex-ante and ex-post impact data, a clear distinction will be made. The information on non-financial impact may be provided on an aggregated portfolio basis because numerous eligible projects will limit the amount of detail that can be made available. The impact assessment is provided with the reservation that not all related data can be covered and that calculations therefore will be on a best effort basis.

An environmental controller in the Environmental Department will calculate the results for the impact reporting. The GFC members will provide data and input into the impact reporting within their areas of expertise. The methodology will follow the most recent impact indicators defined in the Nordic Public Sector Issuers Position Paper on Green Bonds Impact Reporting.

[4] https://www.kuntarahoitus.fi/app/uploads/sites/2/2020/02/NPSI_Position_paper_2020_final.pdf
[5] The position paper suggests an EU Mainland grid factor including the UK and Norway as the default baseline for accounting and disclosure of electricity.
[6] Region Skåne has bilateral loans from both the European Investment Bank (EIB) and the Nordic Investment Bank (NIB) which can be the same projects financed by green bonds. EIB and NIB don't fund more than 50% of a project. The sum in the eligible projects, and the allocation of the bonds, will only contain the part of funding from Region Skåne's green bonds.

Region Skåne has appointed an external auditor, to annually assure the allocation of the net proceeds of the green finance and impact reporting is done in accordance with Region Skåne Green Finance Framework. Reporting, including methodology, and the investor letter will be publicly available on Region Skåne website.

The impact assessment will, if applicable, be based on the Key Performance Indicators (KPIs), examples are:

Green buildings:

- Energy consumption (absolute consumption (kWh) and intensity (kWh/m^2) per year)
- Calculated carbon footprint (absolute emissions (tons) and intensity (kg/m^2) per year)
- GHG emissions reduced/avoided through reduced or avoided energy use

Clean transportation.

- Annual GHG emissions reduced/avoided, from cars and other vehicles
- Passenger-kilometres in new means of transportation
- The number of installed charging stations for electric vehicles

Renewable energy/climate adaptation/Pollution prevention & control:

- At least one example per year (if applicable) of investments financed with green net proceeds

Energy Efficiency:

- kWh/m²/annum as absolute outcome and climate corrected outcome (energy index)
- Percentage of energy use reduced/avoided
- Increase in energy efficiency increase.

3 Assessment of Region Skåne's Green Finance Framework and policies

The framework and procedures for Region Skåne's green finance 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 Region Skåne 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 Region Skåne's Green Finance Framework, we rate the framework **CICERO Medium Green.**

Eligible projects under the Region Skåne's Green Finance 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 and loans 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".

Category	Eligible project types	Green Shading and some concerns
Green buildings	**New Buildings** • Financing of new buildings that are at least 25% more energy efficient than the level required by the applicable building regulation (BBR) or that meet the requirement of at least Miljöbyggnad Silver or an equivalent system determined by Region Skåne that have, or will be validated against an in-use certification. **Existing buildings** • Financing or refinancing of existing buildings, that will be renovated, refurbished or go through a major renovation that meet the requirement of at least Miljöbyggnad Silver or an equivalent system determined by Region Skåne that have, or will be validated against an in-use certification and that achieves at least one of the following criteria:	**Medium Green** ✓ Miljöbyggnad Silver means that energy use has to be 30% lower that required by Swedish Building Regulations in residential buildings and 30% lower in other buildings. ✓ The issuer informs that all purchased central heating and cooling was fossil free by the end of 2020, and the aim is to be fully renewable by the end of 2030. As far as possible, heat loss from e.g., exhaust air ventilation, computer halls, and wastewater should be recovered. ✓ Equivalent certification systems must be at least as good as Miljöbyggnad Gold when it comes to energy use, i.e., less than 75% of current regulations. ✓ Refurbishment of existing buildings are often better than new constructions from a climate point of view but should ideally

		o reduction of total energy use on a m^2 basis of at least 30% with pre-investment level as baseline. o buildings with an Energy Performance Certificate (EPC) with energy class A.	come with greater improvements in energy efficiency. ✓ Energy Performance Class refer to latest classification, never more than five years old. EPC A is 50% better than regulations in Sweden. ✓ The issuer has no strict internal requirement for screening for transport solutions associated with buildings. However, there are requirements for public transport access through the Swedish municipal planning process. In the actual case of the relevant building projects, these have good public transport access according to the issuer. ✓ Be aware of potential rebound effects following energy efficiency improvements. ✓ A more systematic use of climate scenarios to stress test against climate risks is recommended.
Clean transportation	**Infrastructure for low carbon transport** • Financing or refinancing of public and cargo transportation as well as electric and/or other fully electric vehicles such as buses, trucks and related infrastructure supporting public and cargo transportation including public transportation depots and charging stations.		**Dark Green** ✓ Hybrid and fossil fuelled vehicles cannot be funded. ✓ Cargo transport is mostly transportation of textiles used by hospitals. ✓ Examples of public transportation depots are bus depots for city and regional buses in the cities of Malmö and Lund. City buses will be electric, while regional buses will run on biogas. The majority of the biogas is locally sourced.
Renewable energy	**Electricity and heat from renewable sources** • Financing or refinancing of renewable energy production, such as photovoltaics, wind turbines, emission free geothermal heating and cooling as well as related infrastructure such as distribution, transmission, connections and electric substations.		**Dark Green** ✓ Region Skåne produces about 40% of their electricity use, mainly from wind power. The issuer informs us that overall wind power capacity will not be increased. However, 20 MW of wind power will be refinanced. ✓ Transport services, also from subcontractors, will be fossil free, either directly or through climate compensations. ✓ Infrastructure for electricity is only on own properties and for own use. E.g., local DC-grids (DC network) within a facility to

		connect photovoltaics with battery storage and charging stations.
Energy efficiency 	**Individual measures** • Financing or refinancing of investments energy retrofits such as the installation of more efficient ventilation, heating or heat recovery system, adjusting light controls and light fittings. The Green Finance Committee will only include investments where a minimum on 25% energy saving is targeted and a minimum negative climate impact and potential rebound effect is achieved.	**Dark Green** ✓ According to the IEA, around 3% annual efficiency improvement would be necessary to be in line with the IEA 'well below 2 degree C' target. ✓ Only directly associated expenditures will be eligible for green financing.
Climate adaptation 	**Resilience and adaptations** • Financing or refinancing of investments to mitigate the negative consequences of climate change in Region Skåne including adaptation of healthcare buildings, infrastructure, parks and natural landscapes to better withstand heat waves, humidity, increased rainfall, heightened risk of flooding or sea level rise.	**Dark Green** ✓ It is considered positive with elements of climate adaptation. Construction of green areas in city development projects are very useful to absorb excess water from flooding of natural creeks/ponds or stormwater from heavy rainfalls. ✓ The issuer informs us that this category will probably not be funded the coming next three years.
Pollution prevention and control 	• Financing or refinancing of the establishment, expansion or upgrades of solutions contributing prevention and reduction of waste as well as to increase the re-use and recovery of materials as well as prevention or reduction of greenhouse gas emissions, harmful substances and other pollutants into the air, soil or water.	**Dark Green** ✓ Examples are investments in digital tools such as sensors/weight sensors for waste management to get better waste data/statistics and better material sorting for circular flows.
Eco-efficient and circular economy 	• Financing or refinancing of resource-efficient solutions with the aim to reduce pollution, waste, noise, and transportation and to create a better atmosphere, promotion of sustainable transportation solutions and circular economy.	**Dark Green** ✓ Examples of eligible projects are storage/warehouse for furniture storage to increase reuse, and transition from single-use to multi-use textile items.

Table 1. Eligible project categories

Background

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.

As member of the EU, Sweden is subject to the EU's climate targets of reducing collective EU greenhouse gas emissions by 55% by 2030 compared to 1990 levels[7]. The European Green Deal aims for carbon neutrality in 2050[8]. Sweden has developed a National Energy and Climate Plan (NECP) in which it outlines the targets and strategies in all sectors[9]. These strategies include measures such as increasing renewable energy capacity, increasing energy efficiency, facilitating the large-scale implementation of clean transportation alternatives, and increasing carbon sinks through reforestation and the LULUCF sector. Non-ETS emissions, of which public buildings and households are a part, must decrease by 63% by 2030.

The real estate sector accounts for a large share of primary energy consumption in most countries, and the IEA reports that the efficiency of building envelopes needs to improve by 30% by 2025 to keep pace with increased building size and energy demand – in addition to improvements in lighting and appliances and increased renewable heat sources[10]. The energy efficiency of buildings is dependent on multiple factors including increasing affluence and expectations of larger living areas, growth in population and unpredictability of weather, and greater appliance ownership and use. Additionally, approximately half of life-cycle emissions from buildings stem from materials/construction. The other half stems from energy use, which becomes less important over time with the increasing adoption of off-grid solutions such as geothermal and solar. All these factors should therefore be considered in the project selection process. In addition, voluntary environmental certifications such as Miljöbyggnad or equivalents measure or estimate the environmental footprint of buildings and raise awareness of environmental issues. These points-based certifications, however, fall short of guaranteeing a low-climate impact building, as they may not ensure compliance with all relevant factors e.g., energy efficiency, access to public transport, climate resilience, sustainable building materials. Many of these factors are covered under the World Green Building Council's recommendations for best practices for developing green buildings.[11] CICERO Shades of Green assesses all these factors when evaluating the climate impact of buildings.

The Exponential Roadmap[12] lays out a trajectory for reducing emissions by 50% by 2030 and requires that emissions reductions strategies within the buildings sector be rapidly scaled up. The roadmap advocates for standardised strategies that are globally scalable within areas such as new procurement practices for construction and renovation that require dramatically improved energy and carbon emission standards, developing new low-carbon business models for sharing space and smart buildings to achieve economies of scale, and allocating green bond funding for sustainable retrofitting and construction.

EU Taxonomy. In March 2020, a technical expert group (TEG) proposed an EU taxonomy for sustainable finance that included a number of principles including "do-no-significant-harm (DNSH)-criteria" and mitigation thresholds for various types of activities.[13] In November 2020, EU published its draft delegated act to outline its proposed technical screening criteria for climate adaptation and mitigation objectives, respectively, which it was tasked to develop after the Taxonomy entered into law in July[14]. CICERO Green will not here verify Region Skåne's framework against the full EU taxonomy, but notes that the updated taxonomy includes specific thresholds

[7] 2030 Climate Target Plan | Climate Action (europa.eu)

[8] https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

[9] https://ec.europa.eu/energy/topics/energy-strategy/national-energy-climate-plans_en

[10] https://www.iea.org/reports/building-envelopes

[11] https://www.worldgbc.org/how-can-we-make-our-buildings-green

[12] https://exponentialroadmap.org/wp-content/uploads/2020/03/ExponentialRoadmap_1.5.1_216x279_08_AW_Download_Singles_Small.pdf

[13] Taxonomy: Final report of the Technical Expert Group on Sustainable Finance, March 2020. https://ec.europa.eu/knowledge4policy/publication/sustainable-finance-teg-final-report-eu-taxonomy_en

[14] https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12302-Climate-change-mitigation-and-adaptation-taxonomy#ISC_WORKFLOW

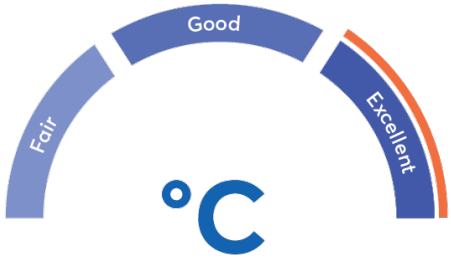
related to several of the issuers eligible activities, including construction of new buildings, renovation of existing buildings, ownerships and acquisition of buildings, electricity generation from solar photovoltaic (PV) technology, geothermal power, hydropower and bioenergy, transmission and distribution of electricity, urban, suburban and road passenger transport and infrastructure for enabling low-carbon road transport.

DNSH-criteria are related to climate change adaptation, circular economy, pollution prevention and control, sustainable use and protection of water and marine resources and protection and restoration of biodiversity and ecosystems.

Governance Assessment

Four aspects are studied when assessing the Region Skåne'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.

Region Skåne has ambitious, but realistic, environmental targets. The selection process for investment projects is good. Although there seems to be a lack of explicit screening for controversial projects, the risk is small given that Region Skåne is a politically governed organisation and the long political and organisational processes that takes place before a project proceeds/is approved. The management of proceeds is aligned with the Green Bond and Green Loan principles (2018) and is moving from management of individual projects to a portfolio approach. Finally, reporting is excellent, although based on a best effort basis.



The overall assessment of Region Skåne's governance structure and processes gives it a rating of **Excellent**.

Strengths

Region Skåne has ambitious, but also realistic targets and plans for development of a climate neutral region. The eligibility criteria for the Green building category, the largest in terms of use of proceeds, are not quite dark green, but are more ambitious than most real estate developers and managers. It is a clear strength that the green bond framework is supported by a good governance structure and clear environmental goals. A further strength is the explicit exclusion of fossil fuel and other harmful technologies. Fossil fuel fractions are also excluded from delivered district heating. Strict procurement requirements help the green transition also in the private sector as well as in the rest of the public sector. Finally, a commitment to substantial impact reporting, although on a best effort and portfolio basis, increases transparency to investors and is a clear strength.

Weaknesses

We find no material weaknesses in Region Skåne's green finance framework.

Pitfalls

CICERO Green factor in if there have been any considerations around transportation solutions and environmental impacts in the construction and demolition phases of the building (building material and waste considerations).

The CICERO Dark Green shading is difficult to achieve in particular in the building sector because buildings have a long lifetime. CICERO Dark Green shading in the building sector should therefore conform to strict measures and is reserved for the highest building standards such as Zero-Energy buildings and passive houses.

The issuer is encouraged to also consider construction phase emissions and systematically work on reducing emissions related to transportation to and from the properties. Currently, there is no strict internal requirement for public transport analyses in Region Skåne. However, there are requirements for public transport access through the Swedish municipal planning process. In the actual case of the relevant building projects, these have good public transport access.

The Green building criteria in Region Skåne's green finance framework secure buildings, new as well as also most probably existing buildings, with energy use well below current regulations which in Sweden is quite low. However, the green buildings eligible under Region Skåne's framework are falling short of the long-term vision of zero-energy buildings or passive houses. Also, investors should note that risks exist that environmental benefits of eligible building projects are clearly overestimated in impact reporting under the framework. Only half of all life cycle greenhouse gas emissions from a new building comes from heat and energy use, while approximately 40% comes from use of materials. Emissions directly associated with construction and demolition account for 2-5%.

The energy efficiency requirement of 25% energy saving during refurbishment, does approximately align with the 30% requirement in the proposed EU Taxonomy, but not with recommendations from IPCC for 'strong refurbishment' with energy savings of the order of 50%.

In calculating emissions and impacts on emissions, Region Skåne relies on a grid factor recommended by the Nordic Public Sector Issuers Position Paper on Green Bonds Impact Reporting. This grid factor is quite high (of the order of more than 300 gCO_2/kWh) and higher than more realistic estimates of the grid factor in Sweden.

Efficiency improvements may lead to rebound effects. When the cost of an activity is reduced there will be incentives to do more of the same activity. From the project categories in table 1, an example is energy efficiency investments in buildings which in part may lead to more energy use or a failing to reach the potential reductions. Region Skåne should work closely with its property users to actively mitigate the risk of rebound effects related to energy efficiency.

Life cycle assessment of projects are mainly carried out in connection with some of the environmental certification schemes.

Appendix 1: Referenced Documents List

Document Number	Document Name	Description
1	Region Skåne Green Bonds Framework 2021 slutlig rev 1.1 210917	Region Skåne's Green Bond Framework dated May 2021 (revised September 17, 2021)
2	Region Skåne's Miljöredovisning, 2019	Annual environmental report, 2019.
3	Region Skåne's Procurement policy (Upphandlingspolicy), Dated 2018-02-27	The Procurement Policy includes Region Skåne's guidelines for procurement.
4	Region Skåne's Miljöprogram 2017-2020, November 2016	Environmental program, 2027-2020
5	Klimatbokslut Region Skåne 2018	GHG emission accounting 2018
6	Klimatbokslut Region Skåne 2019	GHG emission accounting 2019
7	Klimatneutralt Region Skåne Slutrapport	Final report on study of climate control policies in Region Skåne. Dated 27 February 2020
8	Miljökrav vid upphandling	Environmental requirements for procurement
9	Miljöpriolista 2020 (begränsad)	Environmental priority list (Excel sheet)
10	Risker och möjlighetsanalys, miljö och hållbarhet Skånetrafiken	Risks and feasibility analysis of environment and sustainability for Skånetrafiken. Dated 16 June 2020. (Excel sheet)
11	Skånetrafiken klimatnytta - 2050 Slutversion	Calculation of emission benefits from Skånetrafiken. (Excel sheet)
12	LTH rapport miljöperspektiv batteriprojekt Skånetrafiken	Report on environmental benefits from production and use of batteries for electric buses
13	Miljöprogram 2030 (Nov. utkast)	Environmental program 2030

14	Beräkning av Skånetrafikens klimatnytta	Description of a model to calculate climate benefits from Skånetrafiken. Dated 12 May 2020.
15	Regionfastigheter energistrategi 2018 - 2030	The energy strategy of Regionsfastigheter 2018-2030.

°CICERO
Shades of
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).