Hemfosa
Green Bond Second Opinion

26.04.2019

Hemfosa Fastigheter AB (Hemfosa) is one of the largest private owners of community service properties in Sweden and Norway. Hemfosa has in place an energy efficiency target for 2019 and has measured its carbon emissions since 2016. The largest share of emissions comes from heating and cooling the company’s properties. All electricity delivered to the property portfolio comes from renewable energy in the form of hydropower or solar power.

Eligible project categories include green buildings and energy efficiency and will be restricted to Sweden, Norway and Finland. Operating expenditures would not be financed under this framework. For the first green issuance almost 100% of the proceeds will be allocated to green buildings. Smaller renewable energy projects directly connected to buildings will fall under this category as well.

Hemfosa has good management and governance structures, as well as plans for regular and transparent reporting about green bond project achievements to investors and the public. The Hemfosa green bond framework includes detailed and comprehensive reporting on the environmental impact of projects and assets. Hemfosa has not incorporated the recommendations of the Task Force on Climate-related Financial Disclosure (TCFD) and doesn’t have any policy in place on how to manage physical climate risks. The overall assessment of the governance structure of Hemfosa’s Green Bond Framework is a rating of Good.

Based on the overall assessment of the project types that will be financed by the green bonds and governance and transparency considerations, Hemfosa’s Green Bond Framework receives a Medium Green shading. The issuer is encouraged to also consider construction phase emissions, screen for physical climate risks and systematically work on reducing emissions related to transportation to and from the properties.
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1 Terms and methodology

This note provides CICERO Shades of Green’s (CICERO Green) second opinion of the Hemfosa green bond framework dated April 2019. This second opinion remains relevant to all green bonds 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 Hemfosa's policies and processes, as well as information gathered during meetings, teleconferences and email correspondence with the Hemfosa.

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 of the bonds. 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:

<table>
<thead>
<tr>
<th>CICERO Shades of Green</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dark green</td>
<td>Wind energy projects with a strong governance structure that integrates environmental concerns</td>
</tr>
<tr>
<td>Medium green</td>
<td>Bridging technologies such as plug-in hybrid buses</td>
</tr>
<tr>
<td>Light green</td>
<td>Efficiency investments for fossil fuel technologies where clean alternatives are not available</td>
</tr>
<tr>
<td>Brown</td>
<td>New infrastructure for coal</td>
</tr>
</tbody>
</table>

Sound governance and transparency processes facilitate delivery of Hemfosa’s climate and environmental ambitions laid out in the framework. Hence, the governance aspects are carefully considered and reflected in the overall shading of the green bond framework. CICERO Green considers four factors in its review of Hemfosa’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.
2  Brief description of Hemfosa's green bond framework and related policies

Hemfosa Fastigheter AB (Hemfosa) was founded in 2009 and is one of the largest private owners of community service properties in Sweden and Norway. Hemfosa is listed on Nasdaq in Stockholm and is headquartered in the same city. According to the company, Hemfosa is established to support police officers, teachers, doctors and other key workers in society by creating the right premises for the work they do. By focusing on community service properties, Hemfosa’s mission is to play a part in sustainable social development at the same time as creating high and stable returns.

Environmental Strategies and Policies:
The company is committed to follow the Global Compact's ten principles on human rights, labor law, environment and anti-corruption. Hemfosa has measured its carbon emissions since 2016. The largest share of emissions comes from heating and cooling the company’s properties. All electricity delivered to the property portfolio comes from renewable energy in the form of hydropower or solar power. Hemfosa has not yet incorporated the recommendations of the Task Force of Climate-related Financial Disclosures (TCFD) and doesn’t have any policy on resilience yet. The company has recently implemented a new three per cent annual energy reduction target for 2019.

Hemfosa offers green leases. According to the issuer demand for these green leases are however low partly due to geographical reasons. Green leases are more popular in major cities like Stockholm, Malmö & Gothenburg while Hemfosa's operations are spread throughout Sweden as well as in Norway & Finland where green leasing is not that common. The issuer has informed CICERO Green that there are no incentives associated with the green leases.

Use of proceeds:
Hemfosa’s green bond framework will fund eligible projects and assets that support sustainable development and the transition to a low-carbon economy. Eligible projects and assets are to contribute to climate change mitigation through upgrades and retrofits of existing buildings and investments in low-carbon technology and environmentally sound solutions. Eligible project categories include green buildings and energy efficiency.

The investments will be restricted to Sweden, Norway and Finland. Operating expenditures would not be financed under this framework. For the first green issuance almost 100 % of the proceeds will be allocated to green buildings. Small scale renewable energy production directly connected to the buildings will fall under this category as well, such as solar and geothermal. According to the framework proceeds will not be allocated to finance fossil fuel energy generation.

Selection:
The selection process is a key governance factor in the Green bond Principles. CICERO considers how climate and environmental considerations are taken into account when evaluating whether projects can qualify for green bond funding. The Hemfosa green bond framework outlines a detailed and transparent selection procedure that is in line with the Green Bonds Principles.
The selection of eligible green assets is managed by a dedicated group consisting of members from the Finance Department and senior executives. All decisions are made in consensus, and that applies to the selection process of Eligible Green Assets as well. The group consist of five members: CEO, CFO, Head of transaction, Head of Asset management and Head of Finance. Sustainability expertise and knowledge of requirements for green buildings lies within the Head of Asset management. According to the issuer, an updated list of all projects and assets will be kept by senior executives.

Management of proceeds:
CICERO Green finds the management of proceeds to be in accordance with the Green Bond Principles. According to the green bond framework all green bonds issued by Hemfosa will be managed on a portfolio level. This means that a green bond will not be linked directly to one (or more) pre-determined Eligible Green Assets. The company will keep track and ensure there are sufficient eligible green assets in the portfolio. Assets can, whenever needed, be removed or added to/from the portfolio. Any unallocated proceeds temporary held by Hemfosa will be placed on the company’s ordinary bank account or in the short term money market.

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

Hemfosa has committed to annual reporting until no green bonds are outstanding. The report will be made available on Hemfosa website. The Hemfosa green bond framework includes detailed and comprehensive reporting on the environmental impact/performance of projects and assets. The annual report will cover the following areas:

- Total amount of green bonds issued
- Share of proceeds used for financing/re-financing as well as share of proceeds used for green categories
- Share of unallocated proceeds (if any)
- For green building projects: type of certification and degree of certification, energy performance per square meter and/or estimated annual greenhouse gas emissions reduced or avoided for buildings (tCO2e)
- For energy efficiency projects: amount of energy saved per square meter, estimated annual GHG emissions reduced or avoided (tCO2e)

Hemfosa has confirmed that country specific emission factors will be used when calculating emission from the use of electricity.
3 Assessment of Hemfosa green bond framework and policies

The framework and procedures for Hemfosa’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 Hemfosa 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 Hemfosa’s green bond framework, we rate the framework CICERO Medium Green.

Eligible projects under the Hemfosa 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”.

<table>
<thead>
<tr>
<th>Category</th>
<th>Eligible project types</th>
<th>Green Shading and some concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Buildings</td>
<td>Category 1: New construction and major renovations:</td>
<td>Medium green</td>
</tr>
<tr>
<td></td>
<td>- All new construction that either have or will receive minimum certification of Miljöbyggnad Silver, Passive House (Sw. “Passivhus”) or GreenBuilding after the completed construction</td>
<td>✓ The highest shading level, dark green, is reserved for the highest building standards such as Zero-Energy buildings and passive houses.</td>
</tr>
<tr>
<td></td>
<td>- All new construction that i) either have or will receive minimum certification of “BREEAM Very Good” after the completed construction and ii) have an energy performance at least 25% below the current building regulation (Swedish BBR code) after the completed construction</td>
<td>✓ The issuer should also consider construction phase emissions, resilience and emissions related transportation to and from the properties.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>✓ The issuer has confirmed that proceeds will not be used for any equipment that is fossil-fueled.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>✓ This category could include directly connected renewable energy</td>
</tr>
</tbody>
</table>
• New construction with energy consumption 25% below the national building requirements and/or major renovations reducing energy consumption by at least 25%

• All new constructions that either have or will receive an energy performance certificate (EPC) of levels A and B

Category 2: Existing buildings incl. acquired buildings:

• Existing buildings having certification obtained during the construction period according to category I

• Existing buildings certified as Green Building and Miljöbyggnad Silver

• Existing buildings that are i) certified as minimum “BREEAM Very Good” and ii) where renovations have been or will be made reducing energy consumption by at least 25%,

<table>
<thead>
<tr>
<th>Energy Efficiency</th>
<th>Medium green</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy retrofits such as heat pumps, converting to LED lighting, improvements in ventilation systems, extension of district heating and cooling systems</td>
<td>The share of fossil fuels in district heating networks in the region is low, but regional differences exist. Be aware of lock-in effects, in particular if district heating and cooling networks run on a significant share of fossil fuels.</td>
</tr>
</tbody>
</table>

Table 1. Eligible project categories

**Governance Assessment**

Four aspects are studied when assessing the Hemfosa 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.

✓ A 25% reduction in energy use is not enough to be in line with the IEA ‘well below 2 C’ target. The issuer should be conscious of the improvement in standards that will be required over time in order to reach the 2050 targets.
The overall assessment of Hemfosa’s governance structure and processes gives it a rating of Good. Clear potential for improvement of the issuer’s governance structure exists. Hemfosa has a high focus on energy efficiency, including an annual reduction target for 2019, but does not have longer term targets. The issuer has not incorporated the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), doesn’t have in place any policy on resilience nor yet implemented policies towards suppliers. However, the Hemfosa green bond framework includes detailed and comprehensive reporting on the environmental performance of projects and assets.

Strengths

Governance
Hemfosa has in place good environmental policies and reporting. Hemfosa has reported its emissions since 2016. The impact of energy efficiency improvements for different fuels depends on the sector under consideration. On a global level, we need to make the economy more energy efficient at a rate of 3.2% per year through 2040, which is double the rate in the period 2000-2016, in order to be in line with the SDS scenario."1 Hemfosa has implemented an annual target of 3 percent energy efficiency for 2019 which is just below the IEA’s recommendation.

According to the issuer energy efficiency is always in focus. Hemfosa has installed energy monitoring system in all properties. Hemfosa can thereby identify sources of irregular energy consumption. Hemfosa has an internal process that identifies the 10 properties with the highest energy consumption and focuses on reducing the consumption in these properties. There are no specific procurement policies in place. However, during 2019 Hemfosa will implement new digital requirements and a follow-up system to systematize Hemfosa’s sustainability requirements for suppliers and their subcontractors. To have more impact on the supply chain, Hemfosa believes a limited number of suppliers allows for a closer cooperation and provides better insight.

The green bond framework includes a process for removing non-complying projects from the pool of funded projects or assets. Hemfosa has confirmed that if a project or asset cease to comply with the green terms, it will be removed from this list. The list of eligible green assets is monitored on a regular basis during the term of the green bond to ensure that the proceeds are sufficiently allocated to eligible green assets. Head of asset management, which has environmental competence, has a veto right in decisions about properties without an environmental certification. The Hemfosa green bond framework includes detailed and comprehensive reporting on the environmental impact/performance of projects and assets. Hemfosa has confirmed that country specific emission factors will be used when calculating emission from the use of electricity.

Project Categories
The framework focuses on voluntary environmental certifications such as the Sweden-specific Miljöbyggnad (in addition to energy use, indoor climate and material use are assessed), Passive House, Green Building and BREEAM. These certifications provide transparency on the buildings’ environmental impacts. These schemes however provide varying degrees of measurement of the environmental footprint of a building, including energy use. Some are more stringent than others and also offer internal gradings (excellent-good, platinum-silver, etc.). Hemfosa’s green bond framework includes additional energy efficiency requirements which is clearly a strength. One of the ways of encouraging greater energy efficiency focus is through the use of energy performance certificates – or EPCs. EPCs categorise a property on a range from A (low energy consumption) to G (high energy consumption). A building that has an energy consumption corresponding to the requirement imposed on a newly

1 https://www.iea.org/weo2017/
built building is e.g. in Sweden placed in energy class C. The energy classes of A and B referenced in the framework represent higher ambitions than regulations.

**Weaknesses**

No significant weaknesses perceived.

**Pitfalls**

Buildings certifications fall short of guaranteeing an environmentally-friendly building. Therefore, CICERO Green also looks at the energy efficiency improvements of the building and targets that exceed regulations. In a low carbon 2050 perspective, the energy performance of buildings is expected to be improved, with passive house technology becoming mainstream and the energy performance of existing buildings greatly improved through refurbishments. According to the International Energy Agency (IEA), efficiency of buildings needs to improve by 30% by 2025 in order to reach the Paris Agreement well below 2°C climate goal. The highest potential to reduce energy consumption will result from improvements made to the existing building stock. The energy efficiency requirements for existing buildings in the framework of 25 percent is below the 30 percent improvement by 2025 which IEA recommends for renovation of buildings. The issuer should be conscious of the improvement in standards that will be required over time in order to reach the 2050 targets.

CICERO Green also assesses if there is any screening for potential impacts from more extreme weather events, such as flooding and forest fires. Flood risk for properties is of particular concern in vulnerable geographic regions such as those close to rivers that are exposed to flood risks. We also factor in if there have been any considerations around transportation solutions and environmental impacts in the construction phase 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 LEED Platinum, Zero-Energy buildings and passive houses. The issuer is encouraged to also consider construction phase emissions, screen for physical climate risks and systematically work on reducing emissions related to transportation to and from the properties.

**Impacts beyond the project boundary**

Due to the complexity of how socio-economic activities impact the climate, a specific project is likely to have interactions with the broader community beyond the project borders. These interactions may or may not be climate-friendly, and thus need to be considered with regards to the net impact of climate-related investments.

**Rebound effects**

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. Hemfosa should be aware of such effects and possibly avoid green bond funding of projects where the risk of rebound effects is particularly high. The monitoring that Hemfosa does on its properties energy use to identifying issues and work with its property users can actively mitigate the risk of rebound effects related to energy efficiency.
# Appendix 1: Referenced Documents List

<table>
<thead>
<tr>
<th>Document Number</th>
<th>Document Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hemfosa’s Green Bonds Framework, 2019</td>
<td>This document comprises Hemfosa’s Green Bonds Framework and how it intends to use proceeds, how it plans to evaluate and select eligible projects, manages the proceeds and reports to investors.</td>
</tr>
<tr>
<td>2</td>
<td>Annual Report 2018 including a sustainability chapter</td>
<td>Includes examples of green buildings and short descriptions of the company’s sustainability policies</td>
</tr>
<tr>
<td>3</td>
<td>Code of Conduct (2018)</td>
<td>A broad focus on both environment and social issues</td>
</tr>
<tr>
<td>4</td>
<td>Sustainability Policy</td>
<td>A broad focus on both environment and social issues</td>
</tr>
</tbody>
</table>
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).