

**ASSESSMENT**

2 October 2024



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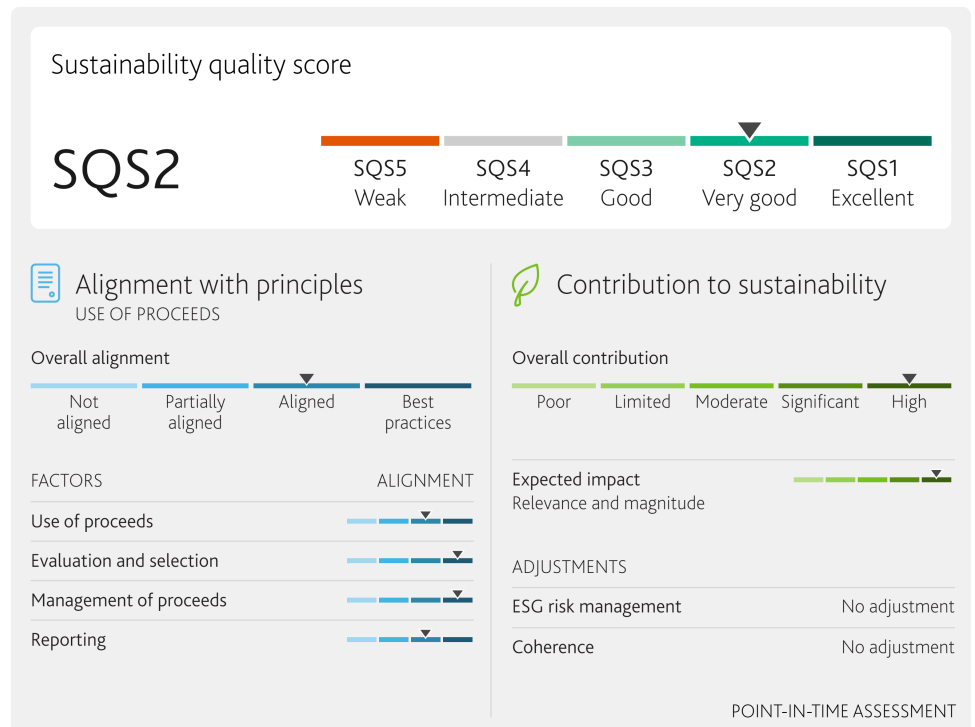
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# Kraftringen Energi AB

## Second Party Opinion – European Green Financing Framework Assigned SQS2 Sustainability Quality Score

### Summary

We have assigned an SQS2 sustainability quality score (very good) to Kraftringen Energi AB (Kraftringen)'s European Green Financing Framework, dated October 2024. Kraftringen has established its European Green Financing Framework with the aim of capitalizing projects across three eligible green categories in renewable energy - solar parks, distribution of electricity, and district heating and cooling. The framework is aligned with the four core components of the International Capital Market Association's (ICMA)'s Green Bond Principles 2021 (including June 2022 Appendix 1), and the Loan Market Association's, the Asia Pacific Loan Market Association's and the Loan Syndications & Trading Association's (LMA/APLMA/ LSTA) Green Loan Principles 2023. The framework also demonstrates a high contribution to sustainability. Within the scope of our assessment<sup>1</sup>, all economic activities across the three eligible categories adhere to all applicable EU Taxonomy Criteria, see Appendix 3.



## Scope

We have provided a second party opinion (SPO) on the sustainability credentials of Krafringen's European Green Financing Framework, including the framework's alignment with the International Capital Market Association's (ICMA)'s Green Bond Principles 2021 (including June 2022 Appendix 1), and the Loan Market Association's, the Asia Pacific Loan Market Association's and the Loan Syndications & Trading Association's (LMA/APLMA/LSTA) Green Loan Principles 2023. Under its framework, the issuer plans to issue green financing instruments, to finance projects under three green categories - renewable energy - solar parks, distribution of electricity, and district heating and cooling (as outlined in Appendix 2 of this report).

We have also provided a supplementary opinion considering whether the economic activities in framework adhere to the Technical Screening Criteria ("TSC") set out in the EU Commission Delegated Regulations (EU) 2021/2139 and (EU) 2023/2486 and the Minimum Safeguards ("MS") set out in Regulation (EU) 2020/852 (as amended from time to time and jointly referred to as "EU Taxonomy Criteria"). Our assessment is performed at the economic activity level in respect of EU Taxonomy Criteria relating to Substantial Contribution and Do No Significant Harm ("DNSH"), and at the entity level for MS. Our work does not constitute an assurance, verification or audit of EU Taxonomy Criteria alignment.

Our assessment is based on the last updated version of the framework received on 1 October 2024, and our opinion reflects our point-in-time assessment<sup>2</sup> of the details contained in this version of the framework, as well as other public and non-public information provided by the company.

We produced this SPO based on our [Framework to Provide Second Party Opinions on Sustainable Debt](#), published in October 2022.

## Issuer profile

Krafringen is an energy company incorporated in 1863, with its registered head office located in Lund, Sweden. The company specializes in the production, distribution and sale of electricity, as well as district heating and cooling, distribution and sale of biogas, construction of infrastructure for data communication (fiber networks and data centers), as well as conducting energy and contracting services, with a total of approximately 280,000 customers. Krafringen's sustainability strategy is focused on achieving net zero emissions by 2030, minimizing the negative environmental impact from its operations, and taking responsibility for society, its employees and owners.

## Strengths

- » The categories will follow the technical screening criteria of the EU Taxonomy Climate Delegated Act for Climate Change Mitigation.
- » Environmental objectives are clearly defined and relevant.
- » The selection and evaluation process for eligible projects is traceable, involves relevant expertise and includes continuous monitoring.

## Challenges

- » The use of woody biomass can lead to negative externalities on biodiversity and climate.
- » There will be no independent verification of the impact report.

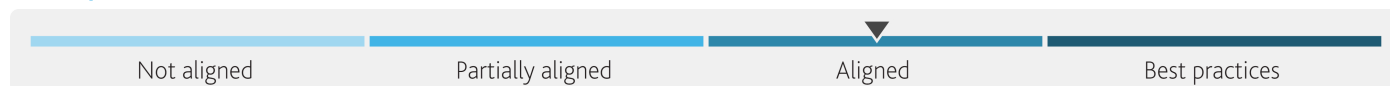
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## Alignment with principles

Kraftringen's European Green Financing Framework is aligned with the four components of the ICMA's Green Bond Principles 2021 (including June 2022, Appendix 1) and the LMA/APLMA/LSTA's Green Loan Principles 2023:

- Green Bond Principles (GBP)
- Social Bond Principles (SBP)
- Green Loan Principles (GLP)
- Social Loan Principles (SLP)
- Sustainability-Linked Bond Principles (SLBP)
- Sustainability Linked Loan Principles (SLLP)

## Use of proceeds



### Clarity of the eligible categories – BEST PRACTICES

Kraftringen has clearly and comprehensively communicated the nature of spending, the eligibility and exclusion criteria for financed or refinanced projects, and that the eligible projects will be deployed in Sweden. The company has provided granular descriptions of the eligible projects that could be financed with each issuance. The definition of eligible categories follows the technical screening criteria contained in the EU Taxonomy Climate Delegated Act for Climate Change Mitigation, thus constituting a reference to stringent, internationally recognized technical thresholds.

### Clarity of the environmental or social objectives – BEST PRACTICES

The company has clearly outlined climate change mitigation as the environmental objective associated with its eligible categories. All eligible categories are relevant to the respective environmental objective to which they are aiming to contribute. The company has referenced the United Nations' (UN) Sustainable Development Goals (SDGs) and the EU Taxonomy in articulating the objectives of the eligible categories, and the objectives are coherent with the recognized international standards.

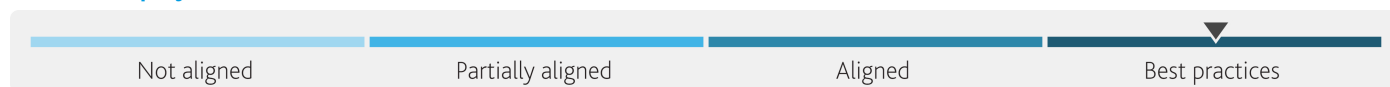
### Clarity of expected benefits – ALIGNED

Kraftringen has identified clear expected environmental benefits for all three eligible categories and these benefits are relevant based on the projects likely to be financed under each category. These identified benefits are measurable, including energy generation capacity, reduction or avoidance of GHG emissions, and increase in distribution capacity. The benefits will be assessed by the issuer, and where possible, quantified for all three eligible project categories in the corresponding annual report in carbon dioxide equivalent (CO<sub>2</sub>e), average interruption time (AIT), average interruption frequency (AIF), megawatt (MW) or megawatt-hour (MWh). The issuer has committed to disclose the refinancing share and look-back period in its annual reporting post-issuance, but an estimation of the share of refinancing per individual issuance will not be disclosed to investors prior to issuance. The look-back period is less than three years for operational expenditure. Fixed assets included within the scope of financing can include any kind of assets built since 1990.

### Best practices identified - use of proceeds

- » Eligibility criteria are clearly defined for all project categories
- » Objectives set are defined, relevant and coherent for all project categories
- » Relevant benefits are identified for all project categories
- » Benefits are measurable and quantified for most projects, either ex-ante with clear baselines or with a commitment to do so in future reporting
- » Commitment to transparently communicate the associated lookback period(s) where feasible

## Process for project evaluation and selection



### Transparency and quality of process for defining eligible projects – BEST PRACTICES

The company's decision-making process is well structured and detailed on all the selection and evaluation steps, including proposal, selection, validation and monitoring of eligible projects. The roles and responsibilities are clear and rely on internal expertise from different areas within the company, organized as a Green Finance Committee composed by the Head of Sustainability, CFO, members of group finance, and representatives from the relevant business area. The decision-making criteria are formalized in its public framework. The company will monitor continued compliance of the selected projects with the eligibility criteria. If a project no longer complies with the eligibility criteria, the company commits to remove it from the list and reallocate the funds to an alternative eligible project. The decisions will be documented in meeting protocols and with internal trackers.

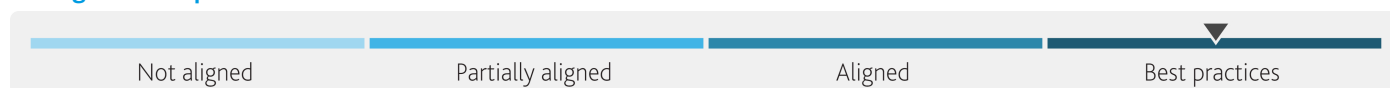
### Environmental and social risk mitigation process – BEST PRACTICES

Kraftringen consistently identifies and monitors ESG risks as a part of its regular operations, throughout the lifespan of a project. The issuer specifies that it will monitor the eligible projects to identify controversies through adhering to procedures established in its ISO certified management systems and continuous update until completion of the project. Risk assessments are carried out before the start of a project and also continuously as part of its incident management system. The company commits to apply measures related to the management of significant ESG risks by combining monitoring, identification and corrective measures for all projects. Material risks have been identified for the majority of projects within the eligible categories. Potential risks concerning electricity distribution identified by the issuer are, for example, soil contamination, noise pollution, bird collisions, habitat destruction, and general risks of working with high voltage or in confined spaces. All incidents are analyzed and, if needed, action taken to prevent its recurrence.

### Best practices identified - process for project evaluation and selection

- » The roles and responsibilities for project evaluation and selection are clearly defined and include relevant expertise
- » There is evidence of continuity in the selection and evaluation process through the life of the financial instrument(s), including compliance verification and procedures to undertake mitigating actions when needed
- » The process for project evaluation and selection is traceable
- » Material environmental and social risks for most project categories are identified
- » Presence of corrective measures to address environmental and social risks across projects
- » ESG controversies are monitored

## Management of proceeds



### Allocation and tracking of proceeds – BEST PRACTICES

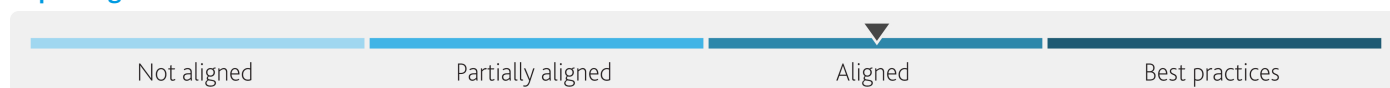
The company has defined a clear and detailed process for the management and allocation of bond proceeds in its publicly available framework. Net proceeds from the green financing instruments will be placed in a dedicated account and tracked by the issuer to ensure those are used only for eligible projects, in line with a formalized internal process. As long as the green financing instruments are outstanding, the balance of the tracked net proceeds will be periodically adjusted to match the allocations to eligible projects made during that period. The allocation period will be shorter than or equal to 24 months.

**Management of unallocated proceeds – BEST PRACTICES**

The issuer has committed to place temporarily unallocated proceeds in activities that are not GHG intensive or controversial. Information on the intended types of temporary placement of such proceeds is publicly disclosed in the framework. In case of project divestment or postponement, the issuer has provided information on the procedure that will be applied and it has committed to reallocate the divested proceeds to projects that comply with the green financing framework.

**Best practices identified - management of proceeds**

- » Broad disclosure of a clearly articulated and comprehensive management of proceeds policy to external stakeholders; bondholders or lenders at a minimum
- » Short allocation period, for example typically less than 24 months
- » Disclosure on temporary placement and presence of exclusion criteria toward environmentally or socially harmful activities
- » Commitment to reallocate proceeds to projects that are compliant with the framework

**Reporting****Transparency of reporting – ALIGNED**

The company will report annually on the use of proceeds until full allocation, and the issuer report will be publicly available on the issuer's website. The reporting will cover relevant information about the allocation of proceeds and the expected sustainable benefits of the projects. The company has also committed to report on material changes, developments, and issues or controversies related to the projects. Kraftringen has stated that reporting will include the allocation as well as specific examples to individual projects based on size. The reporting will also include the allocation of proceeds between financing and refinancing.

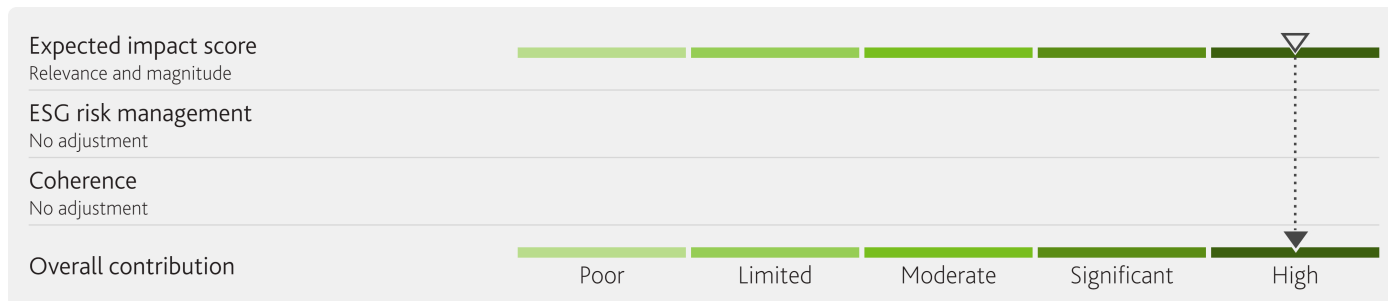
The company has identified clear and relevant environmental reporting indicators for the eligible categories of renewable energy – solar park and district heating and cooling. For the category of distribution of electricity more impactful reporting indicators exist to capture the expected environmental benefits from financed projects. The issuer has disclosed the reporting indicators in its framework. The methodologies and assumptions used to report on the environmental impact of the eligible projects will be publicly disclosed on the company's website. The company will employ an independent external auditor to verify the tracking and allocation of funds to eligible projects until maturity of the green financing instruments. There will be no independent external auditor to verify the indicators used to report on the environmental benefits of the eligible projects.

**Best practices identified - reporting**

- » Reporting covers material developments and issues related to the projects or assets
- » Reporting on allocation of proceeds and benefits done at least at eligible category level
- » Exhaustive allocation reporting – balance or % of unallocated funds, types of temporary investments (e.g. cash or cash equivalent) and share of financing vs re-financing
- » Disclosure of reporting methodology and calculation assumptions to bondholders or lenders at a minimum
- » Independent audit of the tracking and allocation of funds at least until full allocation and in case of material changes

### Contribution to sustainability

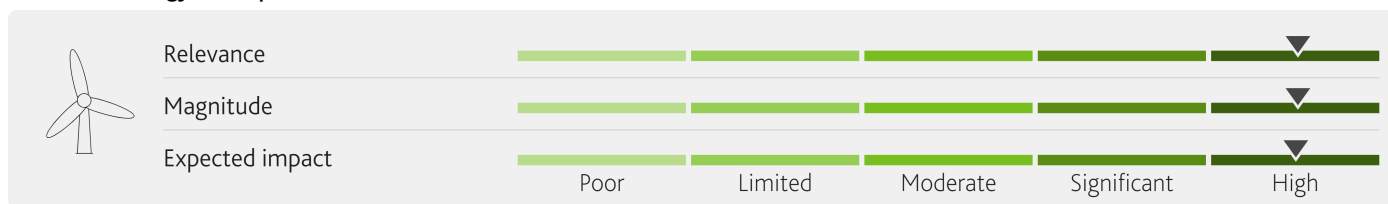
The framework demonstrates a high overall contribution to sustainability.



### Expected impact

The framework demonstrates a high overall contribution to sustainability. Based on information provided by the company, the largest share of proceeds from forthcoming issuances will be allocated to district heating and cooling, with distribution of electricity also accounting for a significant share. We, therefore, assign a higher weight to those categories when we assess the overall structure's contribution to sustainability. A detailed assessment by eligible category is provided below.

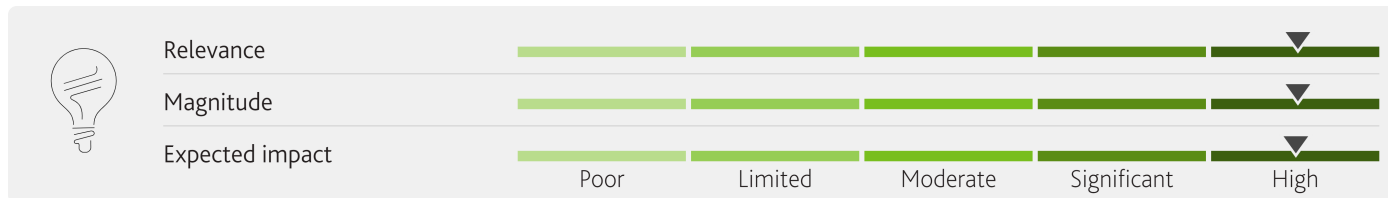
#### Renewable energy: Solar parks



Increasing solar photovoltaics (PV) energy capacity is highly relevant for energy providers looking to contribute to a less carbon-intensive and more sustainable energy system. Despite the dominance of hydro and nuclear energy in Sweden's energy production, the use of solar PV, currently at 1.1%, has been growing. Given the primary importance of decarbonization to the utility industry, these projects are highly relevant to the company's sector and operations.

The magnitude of this category is considered high because the eligible projects under this category are likely to generate a highly positive long-term impact, minimizing any risk of locked-in effects and inherent environmental negative externalities. The issuer's criteria for this category aligns with the latest technology and strictest clean energy standards, namely the technical screening criteria contained in the EU Taxonomy Climate Delegated Act for activity 4.1. Overall, investments under this category are likely to advance the environmental objective of mitigating climate change in the long-term by reducing GHG emissions.

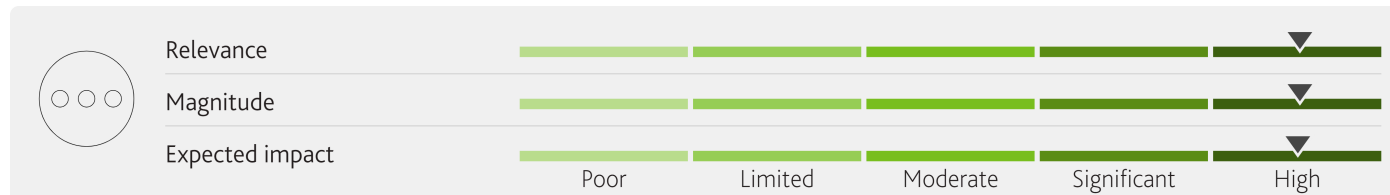
#### Distribution of electricity



Investments in power grids for the distribution of electricity are highly relevant due to the importance that measures related to electricity networks, demand-side measures, end-use electrification, and energy efficiency have in achieving energy security and climate change mitigation goals. Kraftringen plans not only direct connection of new renewable energy generation capacity, but rather more comprehensive grid investments, with a goal to increase or improve the distribution capacity in order to provide a safe and reliable electricity supply. It is noteworthy that transmission, distribution grid, and transformer losses typically account for 4%-15% of total energy generation.<sup>3</sup> Kraftringen's investments aim to accelerate the progress on power system modernization and reduce energy losses.

The magnitude of this category is considered high because the eligible projects are likely to generate a highly positive long-term impact and avoid locked-in effects. Krafringen commits to invest in distribution infrastructure systems, which are on a trajectory to full decarbonization. By following the technical screening criteria in the EU Taxonomy Climate Delegated Act for Climate Change Mitigation for activity 4.9., the category follows one of the most stringent available standards to contribute to the claimed objective in the context of the projects. Consequently, investments under this activity are likely to advance the environmental objective of mitigating climate change in the long-term by reducing energy losses and enabling the distribution of clean energy.

### District heating and cooling



Financed activities are assessed to be highly relevant overall, although differences in the individual projects exist. The district heating and cooling network portion of the category includes construction and maintenance of the existing network, as well as further development of a dedicated low-temperature district heating network in the Brunnsög district of Lund and is expected to account for approximately a quarter of the allocation under this category. In a country context where substantial heating is required and where a district heating network already exists, improving heat delivery is highly relevant for energy providers looking to contribute to a less carbon-intensive and more sustainable energy system. The residential and services sectors account for 39% of final energy use in Sweden as of 2021, and according to Sandvall et al. (2023), about 60% of this energy is used for space heating or hot tap water.<sup>4</sup> Another quarter of the allocation is expected to finance the production of district cooling, which will be distributed via the Brunnsög network. The use of district cooling (DC) systems is a highly relevant way to provide cooling while contributing to climate change mitigation (and adaptation co-benefits), notably in comparison to traditional air conditioning (AC) units. For the biomass combined heat and power plant (CHP), Örtöfta-2, which accounts for almost half of the allocation, the planned fuel mix will be exclusively woody biomass, consisting of bark, wood chips, sawdust, and reclaimed woodchips. Sweden is a country where the land-use change, and forestry sector (LULUCF) constitutes a major net carbon sink, although from 2015 to 2022, net removals have decreased somewhat, by 4.7 Mt CO<sub>2</sub>e out of an overall 46.3 Mt CO<sub>2</sub>e.<sup>5</sup> We consider that using biomass for heat energy in a country where LULUCF continues to be an important sink is a significantly relevant, but not the most relevant solution for providing renewable energy, nor the most relevant use of wood.

The consolidated magnitude of this category is high, although differences in the financed activities exist. For district heating and cooling network, the eligible projects are likely to generate a highly positive long-term impact and avoid locked-in effects. By following the technical screening criteria in the EU Taxonomy Climate Delegated Act for Climate Change Mitigation (EU Taxonomy) for activity 4.15., the category follows one of the most stringent available standards. The network only carries fossil fuel-free heat sourced from either bioenergy or waste heat. A portion of the investments will go toward the innovative Brunnsög low-temperature network, a type of network assessed to be particularly efficient for Sweden. Similarly, the eligible projects to produce district cooling solutions (using absorption cooling, heat pumps, and cooling machines) are expected to generate a highly positive long-term impact without creating significant locked-in effects. The eligibility criteria are aligned with the requirements outlined under the EU Taxonomy's activities 4.16. and 4.25., thereby guaranteeing adherence to stringent standards. In general, district cooling represents the best available technology for cooling as compared to traditional air conditioning, being significantly more energy efficient, flexible, reliable, and with fewer GHG emissions. Traditional AC relies on refrigerants, which often possess high global warming potentials (GWP), and serve as powerful greenhouse gases when they escape. By employing ammonia as the refrigerant, which has a GWP of zero, Krafringen substantially minimizes the risk of adverse environmental externalities in the event of leakage. For the CHP, Krafringen states that all the woody biomass is sourced from Sweden and some of it consists of secondary fuels such as sawdust or reclaimed wood, although the company does also use primary fuels such as waste from logging or wood unsuited to other purposes. Even in advanced economies, certifications or claims of waste wood have been subject to controversies. Using woody biomass promotes logging which has inherent negative externalities on a forest's ability to act as a carbon sink. Sweden's typical method of logging is large scale clear cutting, which can have negative impacts on biodiversity and soil erosion, although Krafringen reports only using logging residues from southern Sweden, where large scale clear cutting is not widely practiced. Furthermore, the project follows the technical screening criteria in the EU

Taxonomy Climate Delegated Act for Climate Change Mitigation for activity 4.20., including the criterion on 80% reduction in GHG emissions compared to a fossil fuel baseline, putting the project in line with the most stringent available criteria. The company's use of secondary fuels also helps reduce its impact.

### ESG risk management

We have not applied a negative adjustment to the expected impact score for ESG risk management. The nature of the projects to be financed under Krafringen's framework suggests there will be limited environmental externalities as a result of the projects. For specific projects, the company establishes an environmental plan which includes an evaluation of environmental risks pertinent to the project, along with an outline of their management approach. The company's guidelines provide instances of typical risks that should be assessed, including climate impact, air pollution, noise and vibrations, waste production, chemical usage, mass management, vehicles and machinery, as well as natural values and invasive species. The company has supplier requirements and a code of conduct detailing the company's expectations for supply chain practices in relation to human rights, worker's rights, anti-corruption, environment, and health and safety.

### Coherence

We have not applied a negative adjustment to the expected impact score for coherence. Krafringen targets to achieve net zero GHG emissions by 2030 and aims to minimize the environmental impact from its operations at company level. Activities financed via green instruments issued under this framework are expected to materially contribute to the issuer's overall sustainability objectives. Investments in additional renewable energy capacities via the development of additional solar parks and upgrades to the infrastructure around district heating and cooling networks and the construction of a combined heat and power plant are expected to materially reduce and avoid GHG emissions. No controversial activities questioning the coherence between the financed projects' sustainability objectives and the sustainability strategy of Krafringen were identified.



## Appendix 1 - Mapping eligible categories to the United Nations' Sustainable Development Goals

The three eligible categories included in Kraftringen's framework are likely to contribute to five of the United Nations' Sustainable Development Goals (SDGs), namely:

UN SDG 17 Goals	Eligible Category	SDG Targets
GOAL 7: Affordable and Clean Energy	Renewable energy: Solar Parks, Distribution of electricity, District heating and cooling.	7.2: Increase substantially the share of renewable energy in the global energy mix 7.3: Double the global rate of improvement in energy efficiency
GOAL 8: Decent Work and Economic Growth	Renewable energy: Solar Parks, Distribution of electricity, District heating and cooling.	8.4: Improve global resource efficiency and endeavour to decouple economic growth from environmental degradation
GOAL 9: Industry, Innovation and Infrastructure	Distribution of electricity, District heating and cooling.	9.4: Upgrade infrastructure and retrofit industries to make them sustainable, with all countries taking action
GOAL 12: Responsible Consumption and Production	Renewable energy: Solar Parks, Distribution of electricity, District heating and cooling.	12.4: Achieve environmental management of chemicals and all wastes, and reduce their release to air, water and soil
GOAL 13: Climate Action	Renewable energy: Solar Parks, Distribution of electricity, District heating and cooling.	13.3: Improve awareness and human and institutional capacity on climate change mitigation, adaptation and impact reduction

The United Nations' Sustainable Development Goals (SDGs) mapping in this SPO considers the eligible project categories (or key performance indicators) and associated sustainability objectives/benefits documented in the issuer/borrow/lender's financing framework, as well as resources and guidelines from public institutions, such as the ICMA SDG Mapping Guidance and the UN SDG targets and indicators.

## Appendix 2 - Summary of eligible categories in Kraftringen's framework

Eligible Category	Description	Sustainability Objectives	Impact Reporting Metrics
Renewable energy: Solar park	This could for example include development, construction, installation, improvement, operation, repair and maintenance of solar park projects.	Climate change mitigation	<ul style="list-style-type: none"> <li>- Energy generation capacity (MW)</li> <li>- Actual annual energy generation (MWh)</li> <li>- Annual reduction and/or avoidance of GHG emissions (CO2e)</li> </ul>
Distribution of electricity	This could for example include construction, installation, improvement, operation, repair, and maintenance of power grids for distribution of electricity (over and underground), smart grid solutions and smart meters, as well as other monitoring systems aimed at enabling reduction of energy consumption.	Climate change mitigation	<ul style="list-style-type: none"> <li>- Increase/improvement in distribution capacity</li> <li>- AIT (Average Interruption Time)</li> <li>- AIF (Average Interruption Frequency)</li> </ul>
District heating and cooling	This could for example include upgrades to, or new, facilities for district heating and cooling. Also infrastructure for distribution of district heating and cooling, e.g. construction, installation, improvement, operation, repair, and maintenance of district heating and cooling pipes, smart grid solutions and smart meters, as well as other monitoring systems aimed at enabling reduction of energy consumption.	Climate change mitigation	<ul style="list-style-type: none"> <li>- Energy generation capacity (MW)</li> <li>- Actual annual energy generation (MWh)</li> <li>- Annual reduction and/or avoidance of GHG emissions (CO2e)</li> </ul>

### Appendix 3 - Adherence to the EU Taxonomy<sup>6</sup>

We have provided a supplementary opinion on the framework's adherence to the EU Taxonomy Criteria, as defined in the scope section of this report. As detailed in the tables below, we consider all economic activities in all three eligible categories to adhere to the EU Taxonomy Criteria. Our assessment is based solely on information provided by the issuer.

Limited to the eligible projects that adhere to the EU Taxonomy, the issuer has implemented processes to ensure that all selected projects adhere to TSC and MS as applicable under the EU Taxonomy Regulation. The issuer has concluded a detailed screening of the EU Taxonomy Criteria for each of the economic activities and identified where existing national law is likely to cover the requirements and where it needs to be complemented by additional measures. This process is described in the "Project evaluation and selection" section, under Alignment with Principles.

Moody's Ratings has expressed its view on the relevance of the environmental objective(s) targeted by the economic activities in the "Contribution to sustainability" section.

Exhibit 1

#### Substantial contribution criteria - Climate change mitigation (CCM)

Eligible Category	Eligible Sub-category	Economic Activity	Adherence	Related issuer information
Renewable energy: Solar parks	Renewable energy	<a href="#">4.1 Electricity generation using solar photovoltaic technology.</a>	Adheres	Kraftringen's activities include the development, construction, installation, improvement, operation, repair and maintenance of solar park projects that produce electricity using solar photovoltaic (PV) technology.
Distribution of electricity	Renewable energy and Energy efficiency	<a href="#">4.9 Transmission and distribution of electricity</a>	Adheres	Kraftringen's local grids are linked with Sweden's high-voltage transmission grid, which in turn is connected to the transmission grids in Europe. The Swedish national average in local grids is lower than 100 g CO <sub>2</sub> e/kWh. Close to 100% of the number of generation facilities connected to Kraftringen's electricity grids are solar cell installations. Additionally, there are currently a number of wind power facilities and a limited number of hydro power installations. The company also operates its own power generation facilities, such as the cogeneration plant in Örtofta that produces electricity with a carbon intensity of 13.1 g CO <sub>2</sub> e/kWh.
District heating and cooling	Renewable energy and Energy efficiency	<a href="#">4.15 District heating/cooling distribution</a>	Adheres	Kraftringen's district heating and cooling systems meet the definition of efficient district heating and cooling systems by using at least 50% renewable energy, 50% waste heat, 75% cogeneration produced heat or 50% of a combination of such energy. Kraftringen's production represents 85% of the district heating volume, which is fossil fuel-free and based on waste heat and renewable fuels. The activity is related to the modification to lower temperature regimes and advanced pilot systems. Specifically, Kraftringen states that is currently building the world's largest low-temperature district heating network in the Brunnsåhg district in the city of Lund. Also, Kraftringen has initiated the project "e-Flex" with the aim to create a digital platform that generates automatic operating plans for the customer's property automation systems.
		<a href="#">4.16 Installation and operation of electric heat pumps</a>	Adheres	In Kraftringen's case, investments under this activity are specifically for cooling as part of the Brunnsåhg project. The portion falling under 4.16 includes heat pumps and cooling machines. <b>Criterion CCM 1a:</b> The Greenhouse Warming Potential (GWP) is zero, as ammonia will be used as the refrigerant in the system. <b>Criterion CCM 1b:</b> The implementing regulations for criterion 1b (under the Ecodesign Directive 2009/125/EC) largely do not seem applicable for the Brunnsåhg planned solution, as the cooling system does not include air conditioners, comfort fans, space heaters, combination heaters, air heating products or fan coil units. The cooling machine has a rated cooling capacity of 2.6 MW and is thus excluded from the scope of the regulation 2016/2281 (according to Article 1B), as is the absorption cooling machine (according to Article 2L).
		<a href="#">4.20 Cogeneration of heat/cool and power from bioenergy</a>	Adheres	<b>Criterion CCM 1:</b> No agricultural biomass is used in Kraftringen's processes. Forest biomass used in the activity complies with the criteria in Dir EU 2018-2001 Art. 29 para. 6. In Sweden there are specific laws and monitoring and control systems for harvesting biomass. <b>Criterion CCM 2:</b> The greenhouse gas emission savings from the use of biomass in cogeneration installations are at least 80% in relation to the GHG emission saving methodology and fossil fuel comparator set out in Annex VI to Directive (EU) 2018/2001. Kraftringen's indicates that the reduction compared to fossil alternatives is of 90%. <b>Criterion CCM 3:</b> Not applicable as Kraftringen's cogeneration installations do not rely on anaerobic digestion of organic material. <b>Criterion CCM 4:</b> Not applicable as Kraftringen's cogeneration installations have a rated thermal input above 2MW.
		<a href="#">4.25 Production of heat/cool using waste heat</a>	Adheres	In Kraftringen's case, investments under this activity are specifically for cooling as part of the Brunnsåhg project. The portion falling under 4.25 includes absorption cooling, a technology which uses waste heat to produce cooling.

Source: Moody's Ratings and Kraftringen

Exhibit 2

## Do no significant harm - Climate change adaptation (CCA)

Eligible Category	Economic Activity	Adherence	Related issuer information
Renewable energy: Solar parks	<a href="#">4.1 Electricity generation using solar photovoltaic technology.</a>	Adheres	<p>Kraftringen provided information regarding the process followed for the current solar park, which will also apply for future projects.</p> <p>The company identifies climate adaptation risks that are material to the projects as part of a broader risk analysis, including the analysis of environmental risks and possible adaptation measures required for demanding climate conditions. Climate risk issues related to temperature, wind, water, or soil, are considered as a part of the mapping and research of possible locations of new solar parks. According to the location, different physical adaptations are needed in order for the system to last its entire estimated life of 30 years. However, the issuer does not conduct a separate, standalone climate adaptation analysis. Instead, the issuer relies on its broader risk analysis, and on permits from local authorities that also require risk assessments to an extent.</p> <p>Kraftringen will consider the highest available resolution, state-of-the-art climate projections for its activities, which have an expected lifespan of more than 10 years. The issuer will take into account these climate projections in order to identify specific risks, with the expectation that these assessments will, as a result, facilitate the adaptation of physical assets during construction. For example, equipment able to endure hard winds, overheating or possible floods. Accordingly, the risk assessment will include climate projections or assessment of impacts in line with the Intergovernmental Panel on Climate Change reports or scientific peer-reviewed publications.</p> <p>Adaptation solutions (physical and non-physical) with corresponding implementation measures, intended at reducing the most important physical risks, are applied for new activities and existing activities using newly-built physical assets. The objective is to conduct all needed climate risk assessments during the design phase and incorporate the necessary adaptations at the construction stage, prior to initiating operations. The company classifies all of its projects and assets as new activities or existing activities using newly-built physical assets, making the criterion for existing activities and new activities using existing physical assets not applicable in this case.</p> <p>Kraftringen ensures that the adaptation solutions do not adversely affect other adaptation efforts, are consistent with local, sectoral, regional, and national adaptation strategies, and the solutions are nature-based.</p>
Distribution of electricity	<a href="#">4.9 Transmission and distribution of electricity</a>	Adheres	<p>For this activity, the issuer makes reference to processes in place for the entire national grid, as Kraftringen's transmission and distribution of electricity is part of the national grid, run by Svenska Kraftnät. Sweden's Ordinance (2018:1428) on government agencies' climate adaptation work mandates a climate risk and vulnerability analysis every five years. Furthermore, Svenska Kraftnät reports annually on plans and measures implemented in response to the risk analysis to the Swedish Meteorological and Hydrological Institute (SMHI) and to the Ministry of Climate and Enterprise.</p> <p>The risk analysis exercise are based on best practice and available guidance in that they directly utilise the RCP 8.5 scenario from the most recent Intergovernmental Panel on Climate Change reports, that is, the most severe of the standard scenarios included.</p>
District heating and cooling	<a href="#">4.15 District heating/cooling distribution</a>	Adheres	<p>Kraftringen confirmed that its district heating/cooling distribution activity complies with the requirements in Appendix A. The management of climate-related risks and adaptations is incorporated as part of the continuous risk assessment process for existing and new components of the distribution grids. These are not reported separately. In general, any identified risk (climate-related or otherwise) that is deemed material in a project is addressed appropriately. This may be either employing approved adaptation solutions or, if necessary, by discontinuing the project. State-of-the-art climate projections are considered generally, (i.e. greater risk of floodings near water, hotter summers and more frequent storms). The issuer reports that district heating and cooling pipes are relatively unexposed to climate risks -- for instance, due to their heavy weight and installation at least one meter below ground level, they are unlikely to be affected by floods.</p>
	<a href="#">4.16 Installation and operation of electric heat pumps</a>	Adheres	<p>Kraftringen confirmed that the cooling infrastructure in the Brunnsnög area complies with the requirements of Appendix A. The management of climate-related risks and adaptations is incorporated as part of the continuous risk assessment process for existing and new components of the distribution grids. These are not reported separately. In general, any identified risk (climate-related or otherwise) that is deemed material in a project is addressed appropriately. This may be either employing approved adaptation solutions or, if necessary, by discontinuing the project. Soil analyses in the Brunnsnög project have determined the soil's strength to tailor the facility's construction, complemented by a stormwater delay system to manage heavy rainfall. Additional measures include a sedum plant-covered roof for rain absorption and insulation to mitigate freezing risks in pipes and equipment.</p>

<a href="#">4.20 Cogeneration of heat/cool and power from bioenergy</a>	Adheres	Kraftringen confirmed that its cogeneration of heat/cool and power from bioenergy activity complies with the requirements in Appendix A. Cogeneration of heat/cool and power from bioenergy is dependent on water access, and both plants Örtofta-1 and Örtofta-2 places a considerable emphasis on maintaining production capabilities even under challenging conditions, such as hotter summers potentially leading to water shortages, or frequent storms that could result in power outages. The climate risk analysis is carried out a part of a larger risk analysis and not reported separately. The construction of CHP requires engagement with authorities, and the process of obtaining permits includes conducting analyses of environmental risks and the evaluation of potential adaptation measures. The identification of risks, including climate risks, lead to the implementation of adaptation solutions or the discontinuation of projects.  Kraftringen will consider the highest available resolution, state-of-the-art climate projections for its activities, which have an expected lifespan of more than 10 years. The issuer will take into account these climate projections in order to identify specific risks, with the expectation that these assessments will, as a result, facilitate the adaptation of physical assets during construction.
<a href="#">4.25 Production of heat/cool using waste heat</a>	Adheres	Similarly to 4.15, Kraftringen confirmed that the cooling infrastructure in the Brunnsjön area complies with the requirements of Appendix A. This is part of the Brunnsjön district heating network where the cooling production facility will be connected, utilizing heat from the area's district network.

Source: Moody's Ratings and Kraftringen

Exhibit 3

### Do no significant harm - Sustainable use and protection of water and marine resources (WMR)

Eligible Category	Economic Activity	Adherence	Related issuer information
Renewable energy: Solar parks	<a href="#">4.1 Electricity generation using solar photovoltaic technology.</a>	Not applicable	N/A
Distribution of electricity	<a href="#">4.9 Transmission and distribution of electricity</a>	Not applicable	N/A
District heating and cooling	<a href="#">4.15 District heating/cooling distribution</a>	Adheres	Appendix B refers to EU directives that are introduced into Swedish legislation. Kraftringen complies with Swedish legislation. Kraftringen also has an ISO14001-certified environmental management system to identify environmental risks including water risks. Legislation only requires a full EIA if the pipeline built is over twenty kilometers long. Adherence to Appendix B does not require a full EIA every time, as long as water risks are identified and monitored, as the issuer reports to do.
	<a href="#">4.16 Installation and operation of electric heat pumps</a>	Adheres	Kraftringen confirmed that the activity complies with Appendix B requirements. Risks related to preserving water quality and the avoidance of water stress have been identified and addressed. The Brunnsjön cooling project will use liquid-to-water heat pumps, where no water will be released from these specific machines.  Water management is meaningful for the cooling project as a whole, since the absorption cooling technology in particular (under activity 4.25) uses large amounts of water. "Hard" calcium carbonate containing water will be "softened" - using filters - into soft water and used in different processes. The water will not be polluted, and after use will be released into the normal wastewater system. In addition, a salt and lime solution will also be used and released into the waste water system. Kraftringen works with its local water utility company VA Syd, responsible for waste and sewage systems, on assessing water quality related to the cooling projects.
	<a href="#">4.20 Cogeneration of heat/cool and power from bioenergy</a>	Adheres	Kraftringen confirmed that the activity complies with Appendix B requirements. The company provided information regarding the specific cases of Örtofta 1 and 2, for which recent assessments showed that operating both plants meets the EU's water framework directive for water (Directive 2000/60/EC), in which the operations do not pose a detrimental effect on the water environment, from neither an ecological nor a chemical perspective.
	<a href="#">4.25 Production of heat/cool using waste heat</a>	Not applicable	N/A

Source: Moody's Ratings and Kraftringen

Exhibit 4

**Do no significant harm - Transition to a circular economy (TCE)**

Eligible Category	Economic Activity	Adherence	Related issuer information
Renewable energy: Solar parks	<a href="#">4.1 Electricity generation using solar photovoltaic technology.</a>	Adheres	The company adheres to industry standards, ensuring the components of the solar park will be recycled after their lifespan of at least 30 years. This involves following the European waste hierarchy, which is facilitated by the advanced waste management practices in Sweden. The solar park comprises of a stainless steel mounting system, cables, standard solar panels, inverters with a 15-year lifespan, and substations. These components are designed for durability and ease of recycling, minimizing any potential environmental impact. The mounting system is piled into the ground for easy removal and recycling, while the inverters are designed to be replaced after their estimated lifespan.
Distribution of electricity	<a href="#">4.9 Transmission and distribution of electricity</a>	Adheres	Kraftringen has a waste management plan in place in accordance with the waste hierarchy and the company has agreements with suppliers to ensure compliance with its "HSSEQ requirements for all suppliers" which outlines the procedures to handle waste.
District heating and cooling	<a href="#">4.15 District heating/cooling distribution</a>	<i>Not applicable</i>	N/A
	<a href="#">4.16 Installation and operation of electric heat pumps</a>	Adheres	Kraftringen's facilities are built and managed to achieve the maximum possible lifespan. For this, it incorporates preventive maintenance and continuous supervision according to the requirements set by the Swedish Work Environment Authority. Additionally, it engages third party organizations to perform annual checks on specific components of the equipment. The company adheres to industry standards, ensuring the components of the energy production facility will be recycled after its useful life, which is estimated to last 30 years. A waste management is in place in accordance with the waste hierarchy and the company has agreements with suppliers to ensure compliance with its "HSSEQ requirements for all suppliers" which outlines the procedures to handle waste.
	<a href="#">4.20 Cogeneration of heat/cool and power from bioenergy</a>	<i>Not applicable</i>	N/A
	<a href="#">4.25 Production of heat/cool using waste heat</a>	Adheres	Kraftringen's facilities are built and managed to achieve the maximum possible lifespan. For this, it incorporates preventive maintenance and continuous supervision according to the requirements set by the Swedish Work Environment Authority. Additionally, it engages third party organizations to perform annual checks on specific components of the equipment. The company adheres to industry standards, ensuring the components of the energy production facility will be recycled after its useful life, which is estimated to last 30 years. A waste management plan is in place in accordance with the waste hierarchy and the company has agreements with suppliers to ensure compliance with its "HSSEQ requirements for all suppliers" which outlines procedures to handle waste.

Source: Moody's Ratings and Kraftringen

Exhibit 5

**Do no significant harm - Pollution prevention and control (PPC)**

Eligible Category	Economic Activity	Adherence	Related issuer information
Renewable energy: Solar parks	<a href="#">4.1 Electricity generation using solar photovoltaic technology.</a>	<i>Not applicable</i>	N/A
Distribution of electricity	<a href="#">4.9 Transmission and distribution of electricity</a>	Adheres	<p>The issuer confirmed that all elements covered under the principles of the IFC General Environmental, Health, and Safety Guidelines are being followed, where applicable. Krafringen complies with the Swedish legislation, and has guidelines for electrical safety that regulate Ownership of high-current installations, Execution of electrical installation work, Safe work (work in case of electrical hazard), Product (electrical product safety). Moreover, Krafringen is ISO45001 certified and the company's environmental management is also certified according to ISO14001 and its quality management system according to ISO9001.</p> <p>The issuer follows the recommendation on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)<sup>182</sup>, by complying with the Radiation Safety Authority's (Strålsäkerhetsmyndighetens) general advice SSMFS 2008:18, which is based on the EU recommendation (1999/519/EC) according to footnote 8.</p> <p>The scope of the envisaged investments do not include polychlorinated biphenyls (PCBs). The issuer's grid still contains PCBs in some old ground cables, after their removal from other infrastructure such as substations. However, the issuer has been able to demonstrate that no infrastructure built since 1990 contains PCBs, and by removing any assets before this date from the scope of financing, it thereby satisfies the EU taxonomy requirement.</p>
District heating and cooling	<a href="#">4.15 District heating/cooling distribution</a>	Adheres	Krafringen has not set special requirements for the top class of the energy label or best available technology in its procurement. However, relevant ecodesign requirements stipulated in Directive 2009/125/EC have been implemented into Swedish law via the Ecodesign Act, that came into force in 2008. Accordingly, products falling under a product group covered by the directive must have the highest energy label possible, or constitute best available technology.
	<a href="#">4.16 Installation and operation of electric heat pumps</a>	Adheres	The only PPC criterion for activity 4.16. relates to sound levels, and potential noise pollution, from air-to-air heat pumps. Krafringen is not planning to install air-to-air heat pumps. Nonetheless, the company states that its facility's sound levels have been calculated and appropriate adaptations have been made to meet relevant regulatory requirements in Sweden.
	<a href="#">4.20 Cogeneration of heat/cool and power from bioenergy</a>	Adheres	Krafringen confirmed that only current projects are envisaged, specifically the plant Örtofta-2, and no future projects are considered in the foreseeable future. The company states that BAT-LCP (Best Available Techniques for Large Combustion Plants) will be met for this plant.
	<a href="#">4.25 Production of heat/cool using waste heat</a>	Adheres	The issuer states that plants with thermal input greater than 1MW but below 50 MW meet environmental requirements from directives and those of environmental permits.
	<a href="#">4.25 Production of heat/cool using waste heat</a>	Adheres	Similarly to 4.15, Krafringen has not set special requirements for the top class of the energy label or best available technology in its procurement. However, relevant ecodesign requirements stipulated in Directive 2009/125/EC have been implemented into Swedish law via the Ecodesign Act, that came into force in 2008. Accordingly, products falling under a product group covered by the directive must have the highest energy label possible, or constitute best available technology.

Source: Moody's Ratings and Krafringen

Exhibit 6

**Do no significant harm - Protection and restoration of biodiversity and ecosystems (PBE)**

Eligible Category	Economic Activity	Adherence	Related issuer information
Renewable energy: Solar parks	<a href="#">4.1 Electricity generation using solar photovoltaic technology</a>	Adheres	The PBE requirements are linked to the assessment of impacts on the environment, either through screening or through a formal Environmental Impact Assessment. Krafringen complies with legal requirements in Sweden, in which the need of an Environmental impact assessment (EIA) is regulated through two legislations: the Planning and Building Act (PBL) and the Environmental Code (MB). In the case of the solar park in Klippan, the county administrative board "Länsstyrelsen" decided that an EIA was not needed. Nevertheless, Krafringen has implemented a number of required precautionary measures to protect biodiversity. The Klippan solar park is not located near areas of sensitive biodiversity, and therefore an appropriate assessment in this regard was not required in this instance.
Distribution of electricity	<a href="#">4.9 Transmission and distribution of electricity</a>	Adheres	Krafringen complies with legal requirements in Sweden. Prior to the construction of an electrical grid project, it requires approval from pertinent authorities, in this case the County Administrative Board (Länsstyrelsen). These supervisory bodies provide instructions for the company to apply beyond their standard work environment plan, regarding the need to conduct an assessment on the environmental impact (EIA) including impact on biodiversity.
District heating and cooling	<a href="#">4.15 District heating/cooling distribution</a>	Adheres	Krafringen only conducts EIA when legally required.  Krafringen complies with Swedish legislation and is in communication with both the Environment Agency and the County Administrative Board.
	<a href="#">4.16 Installation and operation of electric heat pumps</a>	Not applicable	N/A
	<a href="#">4.20 Cogeneration of heat/cool and power from bioenergy</a>	Adheres	Krafringen only conducts EIA when legally required.  Krafringen complies with Swedish legislation and is in communication with both the Environment Agency and the County Administrative Board. New EIAs are available for Krafringen's largest production units, which are the Örtofta CHP plant and the heating plant in Lund.
	<a href="#">4.25 Production of heat/cool using waste heat</a>	Adheres	Krafringen only conducts EIA when legally required.  Krafringen complies with Swedish legislation and is in communication with both the Environment Agency and the County Administrative Board. Although an EIA will not be conducted for its Brunnshög cooling solution, Krafringen will develop environment plans, which include a risk analysis of chemicals and considers safety measures proposed by the County Administrative Board.

Source: Moody's Ratings and Krafringen



Exhibit 7

**Minimum Safeguards**

Minimum Safeguards	Adherence	Related issuer information
Human Rights	Adheres	<p>Kraftringen has established a human rights due diligence process in accordance with the steps and procedures outlined in the UNGPs Guiding Principles on Business and Human Rights. The company has implemented Codes of Conduct for employees and for suppliers, which were adopted in September 2014. New hires are required to complete a training on the code of conduct. This code also incorporates whistle-blowing procedures, featuring an independent, externally managed whistleblowing mechanism. The company also evaluates the human rights practices from its suppliers through a third party, monitors suppliers practices to ensure compliance and overall analyses procurement areas particularly associated with sustainability risks, including human rights.</p> <p>Additionally, there are currently no labour or human rights convictions pending, Kraftringen has no cases accepted by an OECD National Contact Point (NCP), nor are there any allegations made against Kraftringen by the Business and Human Rights Resource Center (BHRR).</p>
Corruption	Adheres	<p>The company has anti-corruption processes in place, which are contained in its Code of Conduct.</p> <p>Furthermore, there are currently no court convictions for corruption pending.</p>
Taxation	Adheres	<p>Kraftringen confirmed that treats tax governance and compliance as important elements of oversight, and has an internal tax governance control programme that is continuously reviewed and evaluated by their external auditors.</p> <p>In addition, there are currently no court convictions pending for violations of tax laws.</p>
Fair Competition	Adheres	<p>Kraftringen has measures in place to promote employee awareness of the importance of compliance with all applicable competition laws and regulations. Kraftringen's purchasing department consistently provides training for staff involved in buying or selling goods, services, or contracts, ensuring their compliance with the procurement regulations.</p> <p>In addition, there are currently no court convictions pending for violations of competition laws.</p>

Source: Moody's Ratings and Kraftringen

**Endnotes**

- [1](#) Please refer definitions set out for both EU Taxonomy Criteria in the Scope section of this report.
- [2](#) Point-in-time assessment is applicable only on date of assignment or update.
- [3](#) [Power transmission and distribution losses – A model based on available empirical data and future trends for all countries globally](#), May 2019.
- [4](#) Sandvall, A., D. Romachenko, and K. Karlsson (2023). "[A comprehensive assessment of cost-optimal heat supply to new low-energy building areas in Sweden.](#)" *Energy Reports* 10: 202-212.
- [5](#) Sweden, [Climate Action Progress Report 2023](#), European Commission.
- [6](#) See Appendix C - Adherence to the EU taxonomy in our [Framework to Provide Second Party Opinions on Sustainable Debt](#), October 2022

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