

‘Second Opinion’ on Skanska’s Green Bond framework

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Summary and conclusions

Overall, Skanska's green bond framework and supporting environmental policies provide a transparent, comprehensive and robust approach to investments that promote a transition to low-carbon and climate-resilient growth. Skanska takes a broad view of climate change impacts in its corporate environmental policies, incorporating life-cycle analysis and the environmental impact of the supply chain. The green bond framework lists eligible projects that are supportive of the objective of promoting a transition to low-carbon and climate-resilient growth.

Skanska recognizes limitations of environmental certification systems, and supplements the certification criteria with additional considerations for energy use, carbon footprint, and efficient materials and water use.

Skanska's framework and procedures are comprehensive and well developed with respect to inclusion of land use and location considerations as part of minimizing the local footprint of Skanska's operations, for monitoring and verification of low-carbon and climate-resilient projects, as well as for balancing remaining carbon emissions through 'reputable means', but more public accessibility of this information would be beneficial.

We acknowledge that Skanska is an active partner in the construction industry to develop procedures for accounting and reporting direct and indirect carbon emissions, including carbon embedded in materials. Skanska's policies support regular and transparent updates to investors and the public.

1. Introduction and background

As an independent, not-for-profit, research institute, CICERO (Center for International Climate and Environmental Research - Oslo) provides second opinions on institutions' framework and guidance for assessing and selecting eligible projects for green bond investments, and assesses the framework's robustness in meeting the institutions' environmental objectives. The second opinion is based on documentation of rules and frameworks provided by the institutions themselves (the client) and information gathered during meetings, teleconferences and e-mail correspondence with the client.

CICERO's Second Opinions are normally restricted to an evaluation of the mechanisms or framework for selecting eligible projects at a general or overall level. CICERO does not validate or certify the climate effects of single projects, and, thus, has no conflict of interest in regard to single projects. CICERO is neither responsible for how the framework or mechanisms are implemented and followed up by the institutions, nor for the outcome of investments in eligible projects.

This note provides a Second Opinion of Skanska's Green Bond Framework and policies for considering the environmental impacts of their projects. The aim is to assess Skanska's Green Bond Framework as to its ability to support Skanska's stated objective of low-carbon and climate resilient growth.

Climate change will have a significant impact on economic development, both from the perspectives of sustainable future development pathways and adapting to changing circumstances. The recently released Intergovernmental Panel on Climate Change report (IPCC, 2013) on the physical science of climate change highlighted the seriousness of human-induced climate effects. The report can be viewed as an immediate call to action on the challenge of reducing greenhouse gas (GHG) emissions. The 195 countries that have ratified the United Nations Framework Convention on Climate Change (UNFCCC) have agreed to reduce GHG emissions to limit global temperature increase to below 2°C. Reaching this target requires shifting development pathways towards low- or zero-emitting economies, and avoiding locking-in high-emitting capital.

CICERO takes a long-term view on activities that support a low-carbon climate resilient society. In some cases, activities or technologies that reduce near-term emissions result in net emissions or prolonged use of high-emitting infrastructure in the long-run. CICERO strives to avoid locking-in of emissions through careful infrastructure investments, and moving towards low- or zero-emitting infrastructure in the long run.

1.1. Buildings sector considerations

Skanska's business focuses on the project development and construction sector, with energy efficiency projects as a key component to the Green Bond Framework. The buildings sector consumes the most energy globally, accounting for over 40% of primary energy consumption in most International Energy Agency (IEA) member countries (IEA/UNDP, 2011). Energy efficiency improvements in buildings are thus important building blocks towards reaching the 2°C goal.

Many energy efficiency options are cost-efficient in theory, but can face practical challenges to implementation. According to the World Energy Outlook 2013 (IEA, 2012), over 80% of the economic potential to improve energy efficiency will remain unrealized in the next two decades. This untapped potential is largely due to non-technical barriers, such as ownership structure –a building owner does not face the same incentives for efficiency improvements as tenants that are responsible for paying electricity bills.

Another consideration is that energy efficiency improvements can reduce greenhouse gas emissions in the short-term, but can also have the counter-effect of increasing emissions over the long-term, by depressing prices that trigger increased demand and emissions from energy use. This effect is known as the 'rebound effect'. CICERO takes a long-term view on energy efficiency, which encourages energy efficiency improvements but with careful consideration of projects where the potential for rebound effects is high.

1.2. Environmental certification systems for buildings

Several voluntary environmental certification systems provide some level of measurement of the environmental footprint of a building, including energy efficiency measures. The most widely used certification system is Leadership in Energy and Environmental Design (LEED), although many other country-specific systems exist.

LEED ratings originated in the United States but are the most widely used globally. A LEED rating is determined by the number of points earned in a project check-list. A higher number of points earn a higher rating, with some requirements for each rating level. Although the LEED certification system does not have

a site selection prerequisite, the sustainability of building site selection, including the urban density and access to public transportation, accounts for 10% of the total points possible.

In the United Kingdom, the BREEAM ratings work in a similar manner to the LEED ratings. BREEAM SE is the Swedish adaptation of this system. BREEAM also includes a comprehensive consideration of environmental and energy issues associated with buildings, including a category on land use and site selection. A rating is issued based on points earned, similar to LEED, with minimum requirements for some environmental issues.

While these voluntary certification systems can improve the environmental footprint of buildings and raise awareness of environmental issues, they fall short of guaranteeing an environmentally-friendly building. For instance, points can be earned for activities that do not have a direct impact on the climate or the environment, such as the use of a trained environmental professional. Likewise, it is possible to achieve the highest ratings with little consideration of critical climate change issues such as site selection, land use, and the building's relation to urban density and public transportation.

2. Brief description of Skanska's green bond framework and environmental policies

Skanska is one of the world's leading construction groups with expertise in construction, development of commercial and residential projects and public-private partnerships. The company carries out all aspects of the construction, development and infrastructure process. It also aims to conduct business with respect to ethics and sustainable development (Skanska, 2012, 2014f).

Skanska's investment framework includes a Green Bond Framework, which is supported by the company's environmental vision, policies, and code of conduct (Skanska, 2014b). The documents that can impact the environmental soundness of the company's investments are described briefly in this section. Table 1 gives an overview of all documents on which this second opinion is based.

The company's Environmental Policy highlights a broad approach to sustainable development, which includes life-cycle assessment of resource use (Skanska, 2011b). The main environmental objectives are to minimize energy consumption; install own renewable energy systems - in collaboration with renewable energy suppliers; use low-carbon construction materials; generate zero waste through reduced upfront demand and recycling; reduce harmful emissions to air, and minimize negative impacts on water, land and soil quality; reduce demand for, conserve and recycle water resources; and reduce harmful emissions to air from road vehicles and mobile equipment. In order to meet its environmental policy targets Skanska collaborates with clients, suppliers, and other partners (Skanska, 2012).

Skanska has developed a strategic framework – 'The Skanska Color Palette' – to measure and communicate the company's performance towards its 'Deep Green' target, whereby process and product should have a near zero impact on the environment. Building and civil and infrastructure projects are categorized as vanilla, green or deep green, depending on their performance with respect to meeting Skanska's energy, carbon, material and water targets.

Environmental Policy should be seen in light of the 'Skanska Code of Conduct' and the 'Code of Conduct Compliance Guidelines', and is tracked by seven Green Strategic Indicators (GSIs). The main Green Strategic Indicators track performance with regard to reducing primary energy use, minimizing CO₂ emissions, eliminating waste production, and eliminating potable water in non-potable applications.

Table 1: Document overview

Document no.	Title	Comments
1	Skanska Green Bond framework	Brief memo on the Green Bond framework
2	Complementary information regarding Green Bond framework	Brief note expanding on some issues related to green bond framework and environmental policy
3	Skanska Environmental Policy	Brief description of environmental policy
4	Skanska Annual Report 2012; extract	Comprehensive description of Skanska's strategies to support sustainable development
5	UN Global Compact principles no. 7, 8 and 9	Description of principles on precautionary approach, environmental responsibility, and diffusion of environmentally friendly technologies
6	Skanska Green Strategic Indicators (GSI)	Brief description of these indicators
7	Skanska ISO 9001, 14001, 18001 Certificate	Certificate from DNV
8	Environmental management. The ISO 14000 family of International Standards	Short description of ISO 14000
9	LEED 2009 for New Construction and Major Renovations; extract	Description of LEED for new buildings
10	LEED 2009 for Core and Shell Development; extract	Description of LEED for core and shell of constructions
11	LEED v4 User Guide	LEED user guide
12	Technical Manual BREEAM NOR; extract	Introduction to Norwegian version of BREEAM for new construction
13	BREEAM SE; extract	Introduction to Swedish version of BREEAM for new constructions
14	BREEAM New Construction; extract	Introduction to BREEAM for new constructions
15	BREEAM International New Construction – Technical Manual; extract	Introduction to international BREEAM for new constructions
16	Skanska Grön lösning – Oppföljning energi och inneklimat.	Brief note on energy saving in buildings.
17	Skanska Grön arbetsplats – För ett kontor, V&A.	Powerpoint presentation on reducing energy, climate impacts, environmental impacts, and waste generation at working places
18	Skanska Local impacts	Web-page describing Skanska's policies w.r.t. local impacts of its activities
19	Skanska Carbon	Web-page describing Skanska's policies w.r.t. to minimizing the carbon footprint of its operations

Skanska is a supporter of the UN Global Compact principles (Skanska, 2012). The relevant UN environmental principles are:

- Principle 7: Businesses should support a precautionary approach to environmental challenges.
- Principle 8: Businesses should undertake initiatives to promote greater environmental responsibility.
- Principle 9: Businesses should encourage the development and diffusion of environmentally friendly technologies.

Skanska’s Green Bond Framework includes a list of eligible mitigation projects owned by wholly-owned subsidiaries of Skanska that promote low-carbon climate resilient growth (see Table 2). Eligible projects for Skanska’s green bond are selected by Skanska’s Sustainability department together with the Treasury department.

Table 2: Eligible project categories

Eligible project types
<p>Certified commercial properties and/or commercial properties under construction to be certified</p> <ul style="list-style-type: none"> • LEED (minimum certification “gold”), or • BREEAM International, SWE or NOR as applicable (minimum certification “very good”) <p>and</p> <ul style="list-style-type: none"> • 25% less energy use than required by applicable codes and regulations

Skanska’s Green Bond procedure stipulates that investors will receive an annual letter listing the projects financed, descriptions of selected projects, as well as a summary of green bond developments. These letters will be made publically available on Skanska’s webpage.

3. Assessment of Skanska’s green Bond framework and environmental policies

Overall, Skanska’s green bond framework and environmental policies provide a progressive, clear and sound framework for climate-friendly investments. The framework and procedures for Skanska’s environmental investments are assessed according to both the micro or project level impacts and the wider (macro-level) impacts in this section.

3.1.1. Corporate environmental policies

The company’s environmental policy focuses on contribution to a sustainable world and proactive environmental management at all levels from local to global. The environmental management system is certified to ISO 14001. Skanska incorporates a life-cycle based perspective on management of projects, products and services to reduce negative environmental impacts. The company also reflects the UN Global Compact in the Environmental Policy, through considering the environmental impact of the supply chain as

well as life-cycle assessment (principle #8). Skanska states that they aim at minimizing the local impacts and footprint of the company’s activities (Skanska, 2012, 2014e). Skanska has explained that these concerns encompass considerations on land use and location, for instance in terms of accessibility of buildings and projects by foot, biking and public transportation, as well as using the concept ‘Green workplace’ (Skanska, 2014a, 2014d). Some projects are redevelopment of brownfields at very accessible locations.

3.1.2. Eligible projects under the Green Bond Framework

The eligible projects listed in the Green Bond Framework are generally supportive of Skanska’s identified objective of promoting a transition to low-carbon and climate-resilient growth. Table 3 below shows the likelihood of meeting the sustainability objective for eligible project categories with respect to the long-term environmental objectives.

Table 3: Eligible projects and likelihood of meeting objective

Eligible project types	Likelihood of meeting objective
Certified commercial properties and/or commercial properties under construction to be certified <ul style="list-style-type: none"> ○ LEED (minimum certification “gold”), or ○ BREEAM (minimum certification “very good”) and <ul style="list-style-type: none"> ○ 25% less energy use than required by applicable codes and regulations 	Good. LEED and other certifications include aspects important to long-term sustainable development, e.g. site selection and consideration of brownfields, urban density and planning, and access to public transportation.

The certification systems alone do not guarantee a low climate impact. Skanska supplements the certification systems with its Color Palette, which measures and communicates the company’s performance towards its ‘Deep Green’ target in terms of energy, carbon, material and water targets. The certification for new commercial properties is also supported by Skanska’s adherence to the UN Global Compact principle #9, which encourages the use of ‘best-available technology’, the reuse of materials, and reduced use of raw materials.

The green bond framework mentions that eligible projects are certified and/or pre-certified commercial projects under construction. This formulation encompasses new constructions that are under construction.

Skanska’s Environmental Policy (Skanska, 2011b) states that own direct emissions will be balanced with the help of “reputable means” in case of insufficient reduction of greenhouse gas emissions. Skanska has explained that “reputable means” refers to purchasing gold standard carbon offsets through the vendor Carbonneutral, London (Skanska, 2014a).

In the Green Strategic Indicators (Skanska, 2011a) it is stated that carbon in construction activities and embodied in materials should be minimized. Skanska has explained that the aim is to reduce all carbon dioxide emissions related to production of materials, transportation, construction activities, waste recycling and energy use throughout the supply chain. However, carbon embedded in materials such as wood - which would mitigate climate change, is not accounted for since most products have a life time of less than 100 years (Skanska, 2014a).

3.1.3 *Macro impacts of projects*

Beyond the consideration of specific project types, it is important to evaluate the potential for macro-level impacts of climate activities. Skanska's policies take a progressive approach to consider macro-issues such as cross-boundary impacts and rebound effects - using the concept of minimizing carbon footprint, as described below.

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.

Skanska uses a life-cycle approach to environmental sustainability as described in the company's annual report (Skanska, 2012). It also includes environmental impacts of its supply chain, as well as involving the work force in environmental management, including sub-contractors, partners and other interested parties. Both of these approaches implicitly consider impacts beyond the project borders.

Rebound effects

Another macro-level concern is the potential for rebound effects. This can occur when small-scale GHG reductions result in a net uptake of emitting activities. For example, energy efficiency improvements in appliances can lower energy costs, and drive higher demand for appliances. This can have the end result of a net increase in GHG emissions, partially negating the climate-friendly aspects of the initial activity. While these effects can never be entirely avoided, it is recommended to be aware of possible rebound effects and avoid investing in projects where the risk of such effects is particularly high.

For energy use in buildings, the rebound effect mainly applies to the potential for increased energy use by tenants. Tenants often face different incentives to reduce their environmental and energy-use footprint than property owners do. While Skanska is not legally responsible for tenants' energy use, the company has experts to follow up on optimizing energy use in new buildings for 18 to 24 months after completion (Skanska, 2014a).

3.1.4 *Transparency and monitoring, reporting and verification*

Skanska's policies support regular and transparent updates to investors and the public. A

Semi-annual and annual reports on green bond investments will be made public on their website. The certification systems include some provisions for monitoring and verification. Skanska has explained that they screen the performance of new projects over the first 18 to 24 months after completion (Skanska, 2014a). The SVEBY template is used to evaluate energy performance. A routine is employed to follow up and optimize energy consumption in properties (Skanska, 2014c). However, more accessible information on system and procedures for monitoring and verification of low-carbon and climate-resilient projects would be useful.

References

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