



Verification of the Sustainability Quality of the Green Bond issued by ING Bank NV

6 November 2015

Aim and Scope of this Second Party Opinion

ING Bank NV commissioned oekom research to assist with the issuance of its Green Bond by verifying and confirming the sustainable added value of this bond using the criteria and indicators of a sustainability framework concept. The aim of this green bond issuance is to finance and refinance sustainable projects financed by the bank in the framework of its sustainable finance programme.

oekom research's mandate included the following services:

- Definition of a framework concept containing a clear description of eligible project categories and the social and environmental criteria assigned to each category for evaluating the sustainability-related performance of the projects financed through the proceeds of the bond.
- Verification of compliance of the financed projects with the verification framework criteria.
- Verification of the alignment of the financed projects with the Green Bond Principles.
- Review and classification of ING Bank NV sustainability performance on the basis of the oekom Corporate Rating.

Overall Evaluation of the Green Bond

oekom's overall evaluation of the Sustainability Bond issued by ING Bank NV is positive:

- The green bond's formal concept, defined processes and (announced) disclosures are aligned with the Green Bond Principles (Part I of this Second Party Opinion).
- The overall sustainability quality of the bond and the sustainability performance of the funded assets in terms of sustainability benefits and risk avoidance and minimisation are good (Part II of this Second Party Opinion).
- The issuer itself shows a good sustainability performance (Part III of this Second Party Opinion).

There are some aspects for which more specific selection or performance criteria would be recommended as it could still add to the overall quality of the Green Bond: For wind power plants, the provision of life-cycle-assessments for all windmills would be an important additional step. For solar power, working conditions in the supply chain of solar panels are an issue that future green bonds could better address.

Part I – Green Bond Principles

ING has provided oekom with detailed information describing eligibility criteria for the assets to be included in its Green Bond, the processes of selecting eligible assets, the management of proceeds and the future reporting to investors. Details are given in the following.

1) Use of Proceeds

The proceeds of this Green Bond will be used exclusively to finance and refinance projects falling under a global Green Bond Framework developed by ING. This global framework covers six project categories (comprising of subcategories) from the bank's sustainable finance programme.

For the allocation of the proceeds of this Green Bond issuance, projects from five specific categories from the global Green Bond Framework have been chosen. All projects within the chosen five categories are assets ING looks to refinance with the proceeds of the Green Bond.

Project Categories ING global Green Bond Framework		Projects included in Green Bond portfolio	Percentage in terms of volume
1.	Renewable energy	✓ Yes	41.0%
1.1	Wind power (onshore and offshore)	✓ Yes	28.5%
1.2	Solar power	✓ Yes	12.5%
1.3	Hydro Power (small run-of-river)	✗ No	0%
1.4	Geothermal power	✗ No	0%
2.	Green building (commercial real estate)	✓ Yes	35.1%
3.	Public transport	✓ Yes	16.3%
3.1	Public transport vehicle production	✓ Yes	12.6%
3.2	Public transport infrastructure	✓ Yes	3.7%
4	Waste	✓ Yes	2.4%
4.1	Recycling	✗ No	0%
4.2	Reuse of waste (gases)	✓ Yes	2.4%
5.	Water	✓ Yes	5.1%
5.1	Wastewater treatment	✓ Yes	5.1%
5.2	Water recycling	✗ No	0%
5.3	Flood prevention (no dams)	✗ No	0%
6.	Energy efficiency	✗ No	0%

From a sustainability point of view, oekom research considers all project categories to be positive.

Additionally, oekom's analysis has shown that the majority of chosen projects (i.e. projects from five out of six categories) meet specific high environmental and social standards (see part II of this document). These criteria are clearly defined and verifiable using quantitative indicators. The criteria aim at ensuring that a positive impact of the projects is not impaired by adverse impacts and effects in other areas (e.g. environmental impacts, impacts on local communities).

2) Process for Project Evaluation and Selection

ING has put into place a comprehensive process to select sustainability related projects, which constitute the pool of assets from which projects for this Green Bond have been chosen. The lending teams of ING Commercial Banking work with sustainability guidelines and the help of the Sustainable Finance team to identify transactions, which are saved in a deals database.

In particular, ING has developed its Environmental and Social Risk (ESR) Framework, which constitutes the basis of the bank's comprehensive sustainable finance approach. The framework includes several policies: exclusion policies, general policies and sector policies, as well as the Equator Principles, a voluntary statement of commitment by banks to observe certain environmental and social minimum standards in project finance, project finance advisory services, project-related corporate loans and bridge loans.

The Sustainable Finance team selects the appropriate transactions for inclusion in the Green bond portfolio from the deals database, using the framework and criteria defined by oekom.

3) Management of Proceeds

ING will use the proceeds to refinance projects from the Green Bond portfolio and is committed to allocate at least 20% of the proceeds to future transactions falling under the categories described above. For the unallocated proceeds, ING will hold them at its treasury department and will invest them at its discretion in cash, cash equivalent and / or money market instruments and / or other liquid marketable instruments in its liquidity portfolio.

4) Reporting

ING commits to report at least annually to its Green Bond investors, via a dedicated report published on its website (both in the investor relations and the sustainability sections). In addition, information will be included in the bank's Integrated Annual Report and will be subject to the third party assurance of the report.

ING will report on the use of proceeds, on newly selected projects that will be included in the Green Bond portfolio as well as on assurance processes and outcomes. ING also commits to impact reporting on the environmental impact of the Green Bond.

ING commits to reporting on the following environmental impact indicators:

- Renewable energy: carbon emissions avoided and total energy produced in kWh
- Green buildings: Annual primary energy consumption in kWh/m² and annual carbon emissions in kg/m² compared to local average

- Public transport, Water, Waste, Energy efficiency: ING intends to develop an impact measurement metric for these sectors

Part II – Sustainability Quality of the Green Bond

1) Green Bond Verification Framework

The Green Bond Verification Framework serves as a framework for verifying the sustainability quality and thus the social and environmental added value of the use of proceeds of this Green Bond. In case ING issues similar bonds, this verification framework can be used for future issuances. The verification framework comprises firstly a clear definition of eligible categories of projects offering environmental added value. Secondly, it encloses the specific sustainability criteria for each project category by means of which this added value and therefore the sustainability performance of the Green Bond can be clearly identified and verified. The sustainability criteria are complemented by specific and measurable indicators which not only make it possible to set ambitious targets but also enable quantitative measurement of the sustainability performance of the bond issuance, as well as informative reporting. In addition, impact indicators have been defined for each project category, which ING will use for its reporting on the Green Bond. Details on the individual criteria and indicators for the project categories can be found in Annex 1 “Green Bond Verification Framework (extended version)”.

2) Verification of the Projects refinanced by the Green Bond

Methods

oekom research has verified whether the projects funded through the bond match the project categories and criteria listed in the Green Bond Verification Framework. The verification was carried out using information and documents provided to oekom research, partly on a confidential basis, by ING (e.g. ING’s lending guidelines, project-related due diligence reports).

Findings

Renewable Energy: Wind power (onshore and offshore)

Sustainability Risks and Benefits of the Project Category

The environmental benefits of wind power comprise climate protection and the transition towards a low carbon economy. Further benefits are less environmental intervention (e.g. resource extraction, releases of waste streams to water or soil) and less need for cooling water in comparison to fossil fuel or nuclear power plants. From a social perspective, the transition from fossil fuels to wind power lowers negative human rights impacts of oil, gas and coal production (e.g. land-use conflicts, resettlement). In addition – different from fossil fuels combustion - wind power does not impact air quality.

However, the construction and operation of wind power plants can result in negative environmental impacts at construction sites (e.g. biodiversity, noise) and impacts on local communities. Further risks include potentially poor working conditions during construction and maintenance of power plants (especially with respect to worker safety) as well as in the production processes of wind power plants. As the construction of these plants requires large amounts of raw materials and equipment, life cycle aspects are an important factor when assessing the overall environmental footprint of related projects.

All wind power projects selected for the Green Bond are located in highly-regulated and developed countries.

Project Type	Percentage of volume in this project category
Offshore wind power plant	13.6%
Offshore wind power plant	20.7%
Offshore wind power plant	10.6%
Onshore wind power plant	19.7%
Onshore wind power plant	6.0%
Near-shore wind power plant	29.4%

- 1. Consideration of environmental aspects during planning and operation
 - ✓ For 4 projects, accounting for 74% of the loans' volume, in-depth environmental impact assessments have been conducted (i.e. assessments including the consideration of all relevant natural goods). For the 2 remaining projects, accounting for 26% of the loans' volume, no or limited environmental assessments have been conducted.
 - ✓ None of the projects is located in key biodiversity areas such as Ramsar sites, UNESCO Natural World Heritage Sites or IUCN protected areas I or II. For projects located in IUCN protected area categories III to VI, ING conducts due diligence in accordance with the Equator Principles and takes mitigation measures to avoid possible negative environmental impacts.
 - ✓ For 3 of the offshore projects, accounting for 60% of the respective loans' volume, good environmental standards are applied during the construction phase (e.g. specific construction periods, noise limits, soft-start piling). No such information is available on the remaining offshore project, accounting for 40% of the respective loans' volume.
 - ✓ For 4 projects, accounting for 73% of the loans' volume, at least adequate measures are in place to protect habitat and wildlife during operation of the plants (e.g. continuous monitoring of birds and bats, turbine turn-off times). No such information is available on the 2 remaining projects, accounting for 27% of the loans' volume.
- 2. Environmental aspects of wind power plants
 - For 1 project, accounting for 11% of the loans' volume, the manufacturer carried out life-cycle assessments of the wind power plants and/or its components. No such information is available on the 5 remaining projects that account for 89% of the loans' volume.
- 3. Community dialogue (onshore wind power projects only)
 - ✓ For 2 onshore projects, accounting for 89% of the respective loans' volume, the active involvement of local residents is ensured, e.g. through official public dialogue. No such information is available for the remaining project, accounting for 11% of the respective loans' volume.
- 4. Working conditions during construction and maintenance work
 - ✓ For 5 of the projects, accounting for 80% of the loans' volume, high labour standards regarding e.g. working time, periods of rest, minimum wages, freedom of association and collective bargaining are in place (in accordance with national legislation). No such information is available for the remaining project, accounting for 20% of the loans' volume.
 - ✓ For 5 of the projects, accounting for 94% of the loans' volume, high standards regarding health and safety for both own employees and contractors are in place during construction and maintenance work (provided for by national legislation or the company's own policies and management systems). No such information is available for the remaining project, accounting for 6% of the loans' volume.
- 5. Social standards in the supply chain
 - For 1 project, accounting for 11% of the loans' volume, wind power plants are manufactured by companies that show a good performance regarding working conditions of own employees and contractors (according to respective grades in the companies' oekom Corporate Rating). For 5 projects, accounting for 89% of the loans' volume, the manufacturers show a poor or medium performance.
 - ✓ For 5 projects, accounting for 94% of the loans' volume, wind power plant manufacturers require high social standards from their suppliers (e.g. regarding the prohibition of forced and child labour, payment, working hours, and health and safety). For the remaining project, accounting for 6% of the loans' volume, no information on the manufacturer's supplier standard is available.

Renewable Energy: Solar power

Sustainability risks and benefits of the project category

The environmental benefits of solar power comprise climate protection and the transition towards a low carbon economy. Further benefits are less environmental intervention (e.g. resource extraction, releases of waste streams to water or soil) and less need for cooling water in comparison to fossil fuel or nuclear power plants. From a social perspective, the transition from fossil fuels to solar power lowers negative human rights impacts of oil, gas and coal production (e.g. land-use conflicts, resettlement). In addition – different from fossil fuels combustion - solar power does not impact air quality.

With respect to potential risks, the manufacturing of solar panels in developing countries such as China can have negative social and environmental impacts. As the production of solar panels requires scarce raw materials and as the panels contain hazardous substances, aspects such as recyclability, management of hazardous substances and conversion efficiency are relevant to evaluate the overall environmental performance of related projects. However, in comparison with other renewable energy sources, social and environmental risks related to solar power are deemed to be low.

All solar power projects selected for the Green Bond are located in highly-regulated and developed countries.

Project Type	Percentage of volume in this project category
Acquisition of solar fields	50.9%
Newly constructed solar fields	10.5%
Operation of PV roof systems	38.6%

- 1. Consideration of environmental aspects during planning and construction (not applicable for PV roof systems)
 - ✓ None of the projects are located in key biodiversity areas such as Ramsar sites, UNESCO Natural World Heritage Sites or IUCN protected areas I to IV.
 - For the newly constructed solar power project, no voluntary environmental impact assessment has been conducted and no information is available on environmental standards during the construction phase above legal requirements.
- 2.Environmental aspects of solar power plants
 - One project, accounting for 11% of the loans' volume, has a performance ratio of at least 80%. It is unclear whether the two other projects, accounting for 89% of the loans' volume, achieve this ratio.
 - For (parts of) the two other projects, which are accounting for at least 32% of the loans' volume, the conversion efficiency of solar panels is at least 15%. For one project, accounting for 11% of the

loans' volume, the conversion efficiency of solar panels is between 14 and 15%. No information is available on the conversion efficiency of the remaining (parts of the) projects, accounting for 57% of the loans' volume.

- ✓ For 100% of the projects, take-back options for used solar panels are available (in accordance with European WEEE-legislation, US-regulations or in the context of the photovoltaic waste management initiative PV Cycle).
- No information is available on the percentage of loans allocated to projects that voluntarily fulfil the requirements of the European Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS Directive).
- 3. Community dialogue (not applicable for PV roof systems)
 - Regarding the only newly constructed solar power project, no information is available on whether the projects provide for community dialogue above legal requirements as an integral part of the planning and construction processes.
- 4. Working conditions during construction and maintenance work
 - For two of the projects, accounting for 49% of the loans' volume, high labour standards regarding e.g. working time, periods of rest, minimum wages, freedom of association and collective bargaining are in place (in accordance with national legislation). No such information is available for the remaining project, accounting for 51% of the loans' volume.
 - ✓ For one of the projects, accounting for 51% of the loans' volume, high standards regarding health and safety for both own employees and contractors are in place during construction and maintenance work (provided for by national legislation). No such information is available for the two remaining projects, accounting for 49% of the loans' volume.
- 5. Social standards in the supply chain of solar modules
 - Like the majority of solar panel manufacturers, the suppliers selected for the projects do not show a good performance regarding working conditions (according to their oekom Corporate Rating) or do not report on their labour standards at all (e.g. regarding health and safety, freedom of association, working hours, minimum wages).
 - It is unclear whether the projects' solar module manufacturers require high social standards from their suppliers (e.g. regarding the prohibition of forced and child labour, minimum wages, working hours, health and safety).

Green building (commercial real estate)

Sustainability Risks and Benefits of the Project Category

Green buildings are beneficial from an environmental point of view as they contribute to climate protection through optimised energy efficiency and air quality. Further, green buildings help to conserve natural resources and reduce environmental impact through the reduction of waste and wastewater. From a social point of view, green buildings can improve occupant health and comfort.

At the same time, there are possible sustainability risks that need to be taken into account. Possible social risks stem from working conditions at construction sites, the integration of new buildings into the social context and the safety of building users. Environmental risks stem from impacts on biodiversity at the planning stage, as well as from poor resource efficiency during construction phase and at the use stage.

All projects selected for the Green Bond are located in highly-regulated and developed countries.

Project type	Green building label	Percentage of volume in this project category
Newly constructed building	BREEAM excellent	41.9%
Acquisition of existing building	LEED Gold	4.1%
Acquisition of existing building	LEED Gold	14.8%
Acquisition of existing building	DGNB Silver	39.2%

- 1. Involvement of local residents at the planning stage (only applicable for new builds)
 - Regarding the one newly constructed building in this project category, only basic information is available on the involvement of local residents at the planning stage.
- 2. Environmental standards for site selection (only applicable for new builds)
 - ✓ 100% of loans are allocated to building projects that are inside metropolitan areas.
- 3. Access to public transport
 - ✓ 100% of loans are allocated to building projects that are located within a maximum of 1 km from one or more modalities of public transport.
- 4. Social standards for construction (only applicable for new builds)
 - ✓ 100% of loans are allocated to building projects located in a country where high labour standards are in place for both employees and contractors (i.e. regarding discrimination, working time, wages, freedom of association and collective bargaining).
 - ✓ 100% of loans are allocated to building projects for which a health and safety management system is in place.

- 5. Environmental standards for construction (only applicable for new builds)
 - ✓ 100% of loans are allocated to building projects carried out by a property company that provides a commitment on the reduction of water, waste and energy at construction sites and adequately manages waste streams at construction sites.
- 6. Sustainable building materials (only applicable for new builds)
 - Regarding the one newly constructed building in this project category, no information is available on whether sustainable procurement measures regarding building materials are in place (e.g. recycled materials, third-party certification of wood based materials).
- 7. Safety of building users
 - ✓ For 3 projects, accounting for 96% of the loans' volume, operational safety is ensured by constructional measures (e.g. fire safety, exit routes, CCTV). For 1 project, accounting for 4% of the loans' volume no detailed information on safety is available.
- 8. Water use minimisation in buildings
 - ✓ For 3 projects, accounting for 61% of the loans' volume, adequate measures to reduce water use are in place (e.g. greywater recycling, efficient applications). For the remaining 1 project, accounting for 39% of the loans' volume, no adequate measures are in place.
- 9. Energy efficiency in buildings
 - ✓ 3 projects, accounting for 58% of the loans' volume, achieved good scores in the relevant sections of the respective building certificates and/or energy certificates. For 1 project, accounting for 42% of the loans' volume, no detailed information on energy efficiency is available to oekom to assess the energy efficiency.
- 10. Labels / certificates
 - ✓ 100% of building projects achieved good scores in green building certificates, i.e. minimum BREEAM "Very Good", LEED "Gold" or DGNB "Silver". 1 project, accounting for 42% of the loans' volume, achieved BREEAM "excellent".
- 11. Sustainable use / purpose of buildings
 - ✓ For 100% of building projects, production facilities of armaments, pesticides, tobacco and generation facilities for environmentally controversial energy forms such as nuclear power or fossil fuelled power can be excluded.

Public transport: Public transport vehicle production

Sustainability Risks and Benefits of the Project Category

The production of electric trains is positive from an environmental point of view as electric trains help to foster climate protection through lower carbon emissions. From a social point of view, passenger train transport helps to reduce injuries and fatalities caused by car accidents.

At the same time, when evaluating the production of electric trains, certain risks have to be taken into account. Major risks from an environmental point of view stem from the negligence of environmental impacts throughout the whole life-cycle (i.e. all impacts from cradle to grave). Social risks stem from safety of both workers at production sites and potential train operators and passengers.

All projects selected for the Green Bond are in highly-regulated and developed countries.

Project type	Percentage of volume in this project category
Electric Train Production	100%

- 1. Consideration of environmental aspects at manufacturing sites
 - ✓ 100% of loans are allocated to trains produced at manufacturing sites with an environmental management system in place that is certified to the ISO 14001 standard.
 - ✓ 100% of loans are allocated to trains produced by a manufacturer that provides a commitment on the improvement of resource efficiency.
 - ✓ 100% of loans are allocated to trains produced by a company that manages carbon emissions through greenhouse gas inventories and reduction targets on a group-wide level.
 - No information is available on site-specific action plans to reduce greenhouse gas emissions.
 - ✓ 100% of loans are allocated to trains produced by a manufacturer that has measures in place to manage the use of substances of concern in production processes.
 - ✓ 100% of loans are allocated to trains produced by a manufacturer that adequately manages hazardous and non-hazardous waste streams.
- 2. Working conditions at manufacturing sites
 - ✓ 100% of loans are allocated to trains produced at manufacturing sites with a health and safety management system in place that is certified to the OHSAS 18001 standard.
 - ✓ 100% of loans are allocated to trains produced in countries where high labour standards are in place for both employees and contractors (i.e. regarding discrimination, working time, wages, freedom of association and collective bargaining).

- 3. Environmental aspects of trains (locomotives and wagons)
 - ✓ 100% of loans are allocated to trains for which the whole life-cycle has been taken account in design and manufacturing.
 - No detailed information on comprehensive life-cycle assessments is available.
 - ✓ 100% of loans are allocated to trains for which material efficiency is considered during product design (e.g. through reduced weight).
 - ✓ 100% of loans are allocated to trains produced by a manufacturer that provides a commitment on the usage of recycled material and has guidelines in place regarding the recyclability of new products.
 - ✓ 100% of loans are allocated to trains for which energy efficiency during operation is optimised (e.g. through reduced train weight, improved aerodynamics, driver advisory system).
- 4. Social aspects of trains
 - ✓ 100% of loans are allocated to trains, which are designed to ensure health and safety for both passengers and operators (e.g. fire detection, vigilance control, video surveillance, access for passengers with reduced mobility).
- 5. Social standards in the supply chain
 - ✓ 100% of loans are allocated to trains produced by a manufacturer that requires high labour and health and safety standards in its supply chain (e.g. ILO core conventions).

Public transport: Public transport infrastructure

Sustainability Risks and Benefits of the Project Category

The operation of electric passenger trains is positive from an environmental point of view as it helps to foster climate protection through lower carbon emissions and optimised transport efficiency. From a social point of view, operation of electric passenger trains is positive as it helps to minimize strain on transport infrastructure.

At the same time, when evaluating public transport projects, certain risks have to be taken into account. From an environmental point of view, risks arise from noise emissions and energy-intensive rail systems. Social risks concern the health and safety of both passengers and operators.

All projects selected for the Green Bond are in highly-regulated and developed countries.

Project Type	Percentage of volume in this project category
Passenger train and network operation (incl. station infrastructure)	100%

- 1. Transport safety
 - ✓ 100% of loans are allocated to projects that have a comprehensive safety management system in place (including e.g. risk assessments, training, audits).
 - ✓ 100% of loans are allocated to projects for which measures to avoid fatigue of train operators are in place (e.g. shift regulations, regular health monitoring).
- 2. Working conditions during operation and maintenance
 - ✓ 100% of loans are allocated to projects in a country where high labour standards are in place for both employees and contractors (i.e. regarding discrimination, working time, wages, freedom of association and collective bargaining).
 - ✓ 100% of loans are allocated to projects in a country where high standards regarding the implementation of a health and safety management system are in place.
- 3. Social aspects of train services
 - ✓ 100% of loans are allocated to projects for which the accessibility for all customer groups is ensured (e.g. through barrier-free access to trains, transport of personal assistance free of charge).
- 4. Environmental aspects of train services
 - ✓ 100% of loans are allocated to projects that operate energy efficient locomotives and wagons (ensured through e.g. lightweight design, energy recovery systems).
 - ✓ 100% of loans are allocated to projects for which measures to optimise energy efficiency of train operation are in place (e.g. through computer aided traffic control and driving of trains).
 - No information is available on measures to optimise energy efficiency of network operation (e.g. energy efficient lighting at train stations).

- ✓ 100% of loans are allocated to projects in countries where maximum noise levels regarding train services are in place.
- No information is available on specific measures to reduce transport-related noise emissions (e.g. low noise tracks).
- No information is available on whether the environmentally friendly disposal of the fleet is guaranteed by the operator.

Waste: Reuse of waste (gases/landfill gas-to-energy)

Sustainability Risks and Benefits of the Project Category

Landfill gas-to-energy projects are considered beneficial from a sustainability point of view: Landfill gas (LFG) is a threat to human health and contributes to global warming. Thus, using it for energy generation reduces health impacts by destroying the majority of hazardous air pollutants through combustion. Further, landfill gas-to-energy projects reduce the climate change impacts of landfill gas.

Still, when evaluating landfill gas-to-energy projects, certain social and environmental risks need to be taken into account. Social risks are mainly posed by working conditions, especially regarding workers' health and safety. Safety aspects of LFG power plants could result in negative impacts on human health as well as on the environment.

All projects selected for the Green Bond are located in highly-regulated and developed countries.

Project Type	Percentage of volume in this project category
Operation of 17 LFG power plants and service contracts for 7 LFG power plants	100%

- 1. Consideration of environmental aspects during planning and construction
 - Not applicable as LFG power plants are built next to existing landfill sites.
- 2. Environmental aspects of LFG power plants
 - No information on the conversion efficiency of LFG power plants is available.
- 3. Safety aspects of LFG power plants
 - ✓ 100% of loans are allocated to projects that are in line with national legislation ensuring safety of LFG power plants (e.g. controls on the migration of LFG, limits of methane levels, wastewater treatment).
- 4. Community dialogue
 - Not applicable as LFG power plants are built next to existing landfill sites.
- 5. Working conditions during construction and operation
 - No information is available on whether high labour standards regarding e.g. working time, periods of rest, minimum wages and freedom of association are applied for employees and contractors.
 - ✓ 100% of loans are allocated to projects in a country where high standards regarding the implementation of health and safety management systems are in place.
- 6. Social standards in the supply chain
 - No information is available on whether high labour and health and safety standards are applied by the manufacturers of the plants' equipment (e.g. ILO core conventions).

Water: Wastewater treatment

Sustainability Risks and Benefits of the Project Category

From a sustainability point of view, wastewater treatment is beneficial as it helps to maintain clean water for reuse, to optimise resource recovery and provide a solution to water shortages. Furthermore, wastewater treatment can safeguard water sources and the ground from contamination through wastewater, which is harmful to people as well as flora and fauna. Properly treated wastewater contains less nutrients, which would otherwise stimulate growth of algae and reduce the availability of oxygen, therefore contributing to the protection of aquatic life.

At the same time, the construction and operation of wastewater treatment facilities can represent social as well as environmental risks. Social risks mainly stem from workers' health and safety and from nuisance of local residents. Environmental risks stem from possible environmental impacts of wastewater treatment processes, i.e. leakage of sewage or poor management of sewage sludge disposal (e.g. disposal into waterways). Also, quality standards for treated water need to be taken into account when evaluating wastewater treatment projects.

All projects selected for the Green Bond are located in highly-regulated and developed countries.

Project Type	Percentage of volume in this project category
Operation of 8 wastewater treatment plants and 3 water links and service contracts for maintenance and supply of several wastewater and water facilities	100%

- 1. Consideration of environmental aspects during planning and construction
 - Not applicable as all assets are already in place.
- 2. Environmental impacts of wastewater treatment plants
 - ✓ For 1 project, accounting for 53% of the cash flows¹, measures to prevent leakages are in place (e.g. data loggers, monitoring). The project is mainly active in operation and maintenance of wastewater treatment plants and water links. For 2 projects, accounting for 47% of the cash flows, no information on measures to prevent leakages is available. These 2 projects are mainly active in wastewater treatment.
 - ✓ For 1 project, accounting for 77% of the relevant cash flows (i.e. cash flows linked to the operation of wastewater treatment plants), some measures to reduce the environmental impact of sewerage sludge disposal are in place (e.g. transport of leachate to treatment plants, energy generation). For 1 project, accounting for 23% of the relevant cash flows, basic information on measures to reduce the impact of sewerage sludge disposal is available.

¹ Percentages refer to forecasted cash flows as the loan is to be repaid from cash flows generated by a portfolio of projects.

- For 1 project, accounting for 23% of the relevant cash flows (i.e. cash flows linked to the operation of wastewater treatment plants), high standards regarding the quality of treated wastewater are in place (i.e. quality exceeds European legal requirements). For 1 project, accounting for 77% of the relevant cash flows, quality of treated water complies with the European Water Framework Directive and no further information is available.
- For the wastewater treatment project that runs combined heat and power and biomass plants (77% of relevant cash flows, i.e. cash flows linked to the operation of wastewater treatment plants), no information on the conversion efficiency for power generation is available.
- 3. Community dialogue
 - Not applicable as the project holder is contracted to operate the plants for another (public) water and sewage services provider.
- 4. Working conditions during construction and operation
 - ✓ 100% of projects are located in a country where high labour standards are in place for both employees and contractors (i.e. regarding discrimination, working time, wages, freedom of association and collective bargaining).
 - ✓ 100% of projects have a health and safety management system in place.

Part III – Assessment of ING’s Sustainability Performance

In the oekom Corporate Rating with a rating scale from A+ (excellent) to D- (poor), ING Bank NV was awarded a score of C and classified as “Prime”. In order to put ING’s performance into context, it is important to consider the fact that the top three companies in the Financials/Commercial Banks and Capital Markets sector are all rated C. ING’s rating result means that the company performed well in terms of sustainability, both compared against others in the industry and in terms of the industry-specific requirements defined by oekom research. In oekom research’s view, the securities issued by the company thus all meet the basic requirements for sustainable investments.



As at 31 October 2015, this rating puts ING in place 10 out of 292 companies rated by oekom research in the Financials/Commercial Banks and Capital Markets sector.

In this sector, oekom research has identified the following issues as the key challenges facing companies in term of sustainability management:

- Sustainability standards for the lending business
- Customer and product responsibility
- Sustainable investment criteria
- Employee relations and work environment
- Business ethics

In four out of five of these key issues, ING Bank NV achieved a rating that was above the average for the sector. A very significant outperformance was achieved in “Sustainability standards for the lending business“ and “Sustainable investment criteria”, whereas in the area “Business ethics”, the company lags a little behind the industry’s average performance.

The company has not committed any violations in the areas of controversial business practices or controversial areas of business, and thus does not breach any of the exclusion criteria, which are frequently applied by investors. Overall, the company has only a “minor” controversy level compared to a level of “significant” in the industry’s average.

Details on the rating of the issuer can be found in Annex 2 “Issuer rating results”.

oekom research AG

Munich, 6 November 2015

Disclaimer

1. oekom research AG uses a scientifically based rating concept to analyse and evaluate the environmental and social performance of companies and countries. In doing so, we adhere to the highest quality standards which are customary in responsibility research worldwide. In addition we create a Second Party Opinion (SPO) on bonds based on data from the issuer.
2. We would, however, point out that we do not warrant that the information presented in this SPO is complete, accurate or up to date. Any liability on the part of oekom research AG in connection with the use of these SPO, the information provided in them and the use thereof shall be excluded. In particular, we point out that the verification of the compliance with the selection criteria is based solely on random samples and documents submitted by the issuer.
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About oekom research

oekom research is one of the world's leading rating agencies in the field of sustainable investment. The agency analyses companies and countries with regard to their environmental and social performance. oekom research has extensive experience as a partner to institutional investors and financial service providers, identifying issuers of securities and bonds which are distinguished by their responsible management of social and environmental issues. More than 100 asset managers and asset owners routinely draw on the rating agency's research in their investment decision making. oekom research's analyses therefore currently influence the management of assets valued at over 600 billion euros.

As part of our Green Bond Services, we provide support for companies and institutions issuing sustainable bonds, advise them on the selection of categories of projects to be financed and help them to define ambitious criteria. We verify the compliance with the criteria in the selection of projects and draw up an independent second party opinion so that investors are as well informed as possible about the quality of the loan from a sustainability point of view.

Contact: oekom research AG, Goethestraße 28, 80336 Munich, Germany, tel: +49 / (0) 89 / 54 41 84-90, e-mail: info@oekom-research.com

Annex

- Annex 1: oekom Green Bond Verification Framework (extended version)
- Annex 2: oekom Corporate Rating of ING Bank NV

Annex 1: Green Bond Verification Framework (extended version)

Green Bond Verification Framework

The Green Bond Verification Framework serves as a framework for verifying the sustainability quality and thus the social and environmental added value of the use of proceeds of this Green Bond. The framework comprises firstly a definition of eligible categories of projects offering environmental added value. Secondly, it encloses the specific sustainability criteria for each project category by means of which this added value and therefore the sustainability performance of the Green Bonds can be clearly identified and verified.

The sustainability criteria are complemented by specific and measurable indicators which enable to set ambitious targets and to evaluate the sustainability performance of the bond issue. Further, they provide the basis for informative reporting. In addition, impact indicators were defined for each project category, thus providing investors to with concrete information of environmental added value.

Use of Proceeds

The proceeds of this Green Bond issued by ING Bank NV will be exclusively used for the following project categories:

1. Renewable energy
 - 1.1 Wind power (onshore and offshore)
 - 1.2 Solar power
 - 1.3 Hydro power (small run-of-river)
 - 1.4 Geothermal power
2. Green buildings (commercial real estate)
3. Public transport
 - 3.1. Public transport vehicle production
 - 3.2. Public transport infrastructure
4. Waste
 - 4.1. Recycling
 - 4.2. Reuse of waste (gases)

- 5. Water
 - 5.1. Wastewater treatment
 - 5.2. Water recycling
 - 5.3. Flood prevention (no dams)
- 6. Energy efficiency

Sustainability Criteria and Quantitative Indicators for Use of Proceeds

In order to ensure that the environmental and social risks linked to the financed projects are prevented and the opportunities clearly fostered, a set of sustainability criteria has been established for each project category. A possible quantitative indicator, allowing for measurement of progress and regular reporting, completes each criterion.

Project category 1: Renewable energy

Project category 1.1: Renewable energy – Wind power (onshore and offshore)

1. Consideration of environmental aspects during planning and operation

Possible quantitative indicators:

- Percentage of loans allocated to projects that underwent environmental impact assessments at the planning stage.
- Percentage of loans allocated to projects for which the location in key biodiversity areas can be excluded (e.g. exclusion of Ramsar sites, UNESCO Natural World Heritage, IUCN protected areas I-IV).
- Percentage of loans allocated to projects that meet high environmental standards and requirements during the construction phase (e.g. noise mitigation, minimisation of environmental impact during construction work).
- Percentage of loans allocated to projects for which measures to protect habitat and wildlife are in place (e.g. measures to protect birds and bats during operation of the power plant, environmentally friendly anti-rust protection).

2. Environmental aspects of wind power plants

Possible quantitative indicator:

- Percentage of loans allocated to projects for which life-cycle assessments of the wind power plants have been carried out.

3. Community dialogue

Possible quantitative indicator:

- Percentage of loans allocated to projects that feature community dialogue as an integral part of the planning process and the operational phase (e.g. sound information of communities, community advisory panels and committees, surveys and dialogue platforms, grievance mechanisms and compensation schemes).

4. Working conditions during construction and maintenance work

Possible quantitative indicator:

- Percentage of loans allocated to projects with high labour and health and safety standards for construction and maintenance work conducted by own employees and contractors (e.g. ILO core conventions).

5. Social standards in the supply chain

Possible quantitative indicator:

- Percentage of loans allocated to projects for which high labour and health and safety standards are applied in the supply chain (e.g. ILO core conventions).

Controversies

- Description of controversial projects (e.g. due to labour rights violations, environmental accidents, adverse biodiversity impacts).

Possible impact indicators: Energy production and avoidance of CO₂ emissions

- Total annual energy production by the wind power projects (in kWh).
- Total annual avoidance of CO₂ emissions through the wind power projects (in t), based on the carbon intensity of the relevant country's / region's energy mix.

Project category 1.2: Renewable energy – Solar power

1. Consideration of environmental aspects during planning and construction

Possible quantitative indicators (not applicable for PV roof systems):

- Percentage of loans allocated to projects that underwent environmental impact assessments at the planning stage.
- Percentage of loans allocated to projects for which the location in key biodiversity areas can be excluded (e.g. exclusion of Ramsar sites, UNESCO Natural World Heritage, IUCN protected areas I-IV).
- Percentage of loans allocated to projects that meet high environmental standards and requirements during the construction phase (e.g. noise mitigation, minimisation of environmental impact during construction work).

2. Environmental aspects of solar power plants

Possible quantitative indicators:

- Percentage of loans allocated to projects for which the performance ratio of solar power plants is at least 80%.
- Percentage of loans allocated to projects for which conversion efficiency is at least 15%.
- Percentage of projects that meet high environmental standards regarding take-back and recycling of solar modules at end-of-life stage.
- Percentage of loans allocated to projects for which the thresholds defined by the European Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS Directive) are voluntarily fulfilled.

3. Community dialogue (not applicable for PV roof systems)

Possible quantitative indicator:

- Percentage of loans allocated to projects that feature community dialogue as an integral part of the planning process and construction phase (e.g. sound information of communities, community advisory panels and committees, surveys and dialogue platforms, grievance mechanisms and compensation schemes).

4. Working conditions during construction and maintenance work

Possible quantitative indicator:

- Percentage of loans allocated to projects with high labour and health and safety standards for construction and maintenance work conducted by own employees and contractors (e.g. ILO core conventions).

5. Social standards in the supply chain

Possible quantitative indicator:

- Percentage of loans allocated to projects for which high labour and health and safety standards are applied in the supply chain (e.g. ILO core conventions).

Controversies

- Description of controversial projects (e.g. due to labour rights violations, environmental accidents, adverse biodiversity impacts).

Possible impact indicators: Energy production and avoidance of CO₂ emissions

- Total annual energy production by the solar power projects (in kWh).
- Total annual avoidance of CO₂ emissions through the solar power projects (in t); based on the carbon intensity of the relevant country's / region's energy mix.

Project category 1.3: Renewable energy – Hydro power (small run-of-river)

1. Consideration of environmental aspects during planning and construction

Possible quantitative indicators:

- Percentage of funds allocated to projects that underwent environmental impact assessments at the planning stage.
- Percentage of funds allocated to projects for which the location in key biodiversity areas can be excluded (e.g. exclusion of Ramsar sites, UNESCO Natural World Heritage, IUCN protected areas I-IV).
- Percentage of funds allocated to projects that meet high environmental standards and requirements during the construction phase (e.g. noise mitigation, minimisation of environmental impact during construction work).
- Percentage of funds allocated to projects for which measures to protect habitat and wildlife are in place (e.g. provision of fish passes, fish-friendly turbines, provision for sediment transport, management of erosion risks).

2. Community dialogue

Possible quantitative indicator:

- Percentage of funds allocated to projects that feature community dialogue as an integral part of the planning process and construction phase (e.g. sound information of communities, community advisory panels and committees, surveys and dialogue platforms, grievance mechanisms and compensation schemes).

3. Working conditions during construction and maintenance work

Possible quantitative indicator:

- Percentage of funds allocated to projects for which high labour and health and safety standards are applied for both own employees and contractors (e.g. ILO core conventions).

4. Social standards in the supply chain

Possible quantitative indicator:

- Percentage of funds allocated to projects for which high labour and health and safety standards are applied in the supply chain (e.g. ILO core conventions).

Controversies

- Description of controversial projects (e.g. due to labour rights violations, environmental accidents, adverse biodiversity impacts).

Possible impact indicators: Avoidance of CO₂ emissions

- Total annual energy production by the hydro power projects (in kWh).
- Total annual avoidance of CO₂ emissions by the hydro power projects (in t); based on the carbon intensity of the relevant (e.g. country) energy mix.

Project category 1.4: Renewable energy – Geothermal power

1. Consideration of environmental aspects during planning and construction

Possible quantitative indicators:

- Percentage of loans allocated to projects that underwent environmental impact assessments at the planning stage.
- Percentage of loans allocated to projects for which major fault lines are considered in the planning process and siting in an appropriate distance from major fault lines is guaranteed.
- Percentage of loans allocated to projects for which the location in key biodiversity areas can be excluded (e.g. exclusion of Ramsar sites, UNESCO Natural World Heritage, IUCN protected areas I-IV).
- Percentage of loans allocated to projects that meet high environmental standards and requirements during the construction phase (e.g. noise mitigation, minimisation of environmental impact during construction work).

2. Environmental aspects of geothermal power plants

Possible quantitative indicators:

- Percentage of loans allocated to projects for which measures to avoid contamination of soil and groundwater are in place (e.g. well casing, monitoring of wells during drill activities, management of waste streams).
- Percentage of loans allocated to projects for which appropriate measures for the disposal of flowback and production water are in place (e.g. exclusion of introduction into waterways or normal wastewater treatment plants, exclusion of impoundments, treatment and reuse of flowback and production water, safe storage).
- Percentage of loans allocated to projects for which measures to manage gaseous emissions are in place (e.g. closed-loop systems).
- Percentage of loans allocated to projects for which seismic monitoring is in place.

3. Community dialogue

Possible quantitative indicator:

- Percentage of loans allocated to projects that feature community dialogue as an integral part of the planning process and construction phase (e.g. sound information of communities, community advisory panels and committees, surveys and dialogue platforms, grievance mechanisms and compensation schemes).

4. Working conditions during construction and operation

Possible quantitative indicators:

- Percentage of loans allocated to projects with high labour and health and safety standards for construction work conducted by own employees and contractors (e.g. ILO core conventions).
- Percentage of loans allocated to projects with high labour and health and safety standards for operational tasks conducted by own employees and contractors (e.g. ILO core conventions).

5. Social standards in the supply chain

Possible quantitative indicator:

- Percentage of funds allocated to projects for which high labour and health and safety standards are applied in the supply chain (e.g. ILO core conventions).

Controversies

- Description of controversial projects (e.g. due to labour rights violations, environmental accidents, adverse biodiversity impacts).

Possible impact indicators: Energy production and avoidance of CO₂ emissions

- Total annual energy production by the geothermal power projects (in kWh).
- Total annual avoidance of CO₂ emissions through the geothermal power projects (in t). The CO₂ avoidance is based on the net reduction of CO₂ (CO₂ emissions avoided minus CO₂ equivalents emitted during geothermal activities) and on the carbon intensity of the relevant country's / region's energy mix.

Project category 2: Green buildings (commercial real estate)

1. Involvement of local residents at the planning stage (only applicable for new builds)

Possible quantitative indicator:

- Percentage of loans allocated to building projects for which residents are involved at the planning stage (e.g. information of residents, dialogue platforms).

2. Environmental standards for site selection (only applicable for new builds)

Possible quantitative indicators:

- Percentage of loans allocated to large-scale building projects (> 5,000 m²) outside metropolitan areas for which an environmental impact assessment is carried out.
- Percentage of loans allocated to building projects that are developed on brownfield sites.

3. Access to public transport (only applicable for new builds)

Possible quantitative indicator:

- Percentage of loans allocated to building projects that are located within a maximum of 1 km from one or more modalities of public transport.

4. Social standards for construction

Possible quantitative indicator:

- Percentage of loans allocated to building projects with high labour and health and safety standards for construction work conducted by own employees and contractors (e.g. ILO core conventions).

5. Environmental standards for construction

Possible quantitative indicator:

- Percentage of loans allocated to building projects for which resource efficiency (e.g. water, energy) and adequate management of waste is guaranteed by the implementing construction companies.

6. Sustainable building materials

Possible quantitative indicator:

- Percentage of loans allocated to building projects for which sustainable procurement measures regarding building materials are in place (e.g. recycled materials, third-party certification of wood based materials).

7. Safety of building users

Possible quantitative indicator:

- Percentage of loans allocated to building projects for which the operational safety is ensured by constructional measures (e.g. fire safety, elevator safety).

8. Water use minimisation in buildings

Possible quantitative indicator:

- Percentage of loans allocated to building projects for which measures to reduce water use are in place (e.g. water metering, high-efficiency fixtures and fittings, rainwater harvesting).

9. Energy efficiency of buildings

Possible quantitative indicator:

- Percentage of loans allocated to building projects that received good scores in the energy efficiency ratings of the respective buildings certificates (BREEAM, LEED) or that are proven to be part of the top 15% of the local market in terms of energy efficiency. *(Depending on data availability at ING)*

10. Labels / Certificates

Possible quantitative indicator:

- Percentage of loans allocated to building projects that obtained a BREEAM “Very Good”, DGNB „Silver / Gold“², LEED “Gold” certificate or HQE „excellent“ or better certification.

11. Sustainable use / purpose of buildings (if already determined)

Possible quantitative indicator:

- Percentage of building projects for which production facilities of armaments, pesticides, tobacco and generation facilities for environmentally controversial energy forms such as nuclear power or fossil fuelled power can be excluded.

Controversies

- Description of controversial projects (e.g. due to labour rights violations, environmental accidents, adverse biodiversity impacts).

Possible impact indicators: Energy consumption and avoidance of CO₂ emissions

- Average primary energy consumption (in kWh/m²).
- Annual CO₂ emissions (in kg/m²) compared to the local average.

² With effect from 1 July 2015, DGNB updated its certification scheme, now ranging from “Bronze” to “Platinum”: The “Bronze” certificate will be replaced by “Silver”, “Silver” by “Gold” and “Gold” by “Platinum” for new certifications with immediate effect. “Bronze” will only be used for existing buildings in the future. The evaluation system and the assessment methodology remain unchanged.

Project category 3: Public transport

Project category 3.1: Public transport – Public transport vehicle production

1. Consideration of environmental aspects at manufacturing sites (only applicable for newly produced vehicles)

Possible quantitative indicators:

- Percentage of loans allocated to vehicles produced at manufacturing sites that have a comprehensive environmental management system in place.
- Percentage of loans allocated to vehicles produced at manufacturing sites where material efficiency is an integral part of production processes.
- Percentage of loans allocated to vehicles produced at manufacturing sites that properly manage direct and indirect carbon emissions (through e.g. inventories, targets and action plans).
- Percentage of loans allocated to vehicles produced at manufacturing sites where substances of concern are strictly limited in production processes.
- Percentage of loans allocated to vehicles produced at manufacturing sites where hazardous and non-hazardous waste streams are properly managed.

2. Working conditions at manufacturing sites (only applicable for newly produced vehicles)

Possible quantitative indicators:

- Percentage of loans allocated to vehicles produced at manufacturing sites that have a comprehensive health and safety management system in place.
- Percentage of loans allocated to vehicles produced at manufacturing sites where high labour standards are guaranteed (e.g. ILO core conventions).

3. Environmental aspects of vehicles

Possible quantitative indicators:

- Percentage of loans allocated to vehicles for which comprehensive life-cycle-assessments have been conducted.
- Percentage of loans allocated to vehicles for which material efficiency is considered during product design.
- Percentage of loans allocated to vehicles for which a significant proportion of recycled material is used (e.g. steel, plastics).
- Percentage of loans allocated to vehicles for which recyclability at end-of-life stage has been considered during design and construction.
- Percentage of loans allocated to vehicles for which energy efficiency during operation is optimised (e.g. through energy recovery systems).
- Percentage of loans allocated to vehicles that fulfil high international standards regarding air emissions (e.g. NO_x, SO_x, dust) (not applicable for electric vehicles).

4. Social aspects of vehicles

Possible quantitative indicator:

- Percentage of loans allocated to vehicles which ensure health and safety for both passengers and operators (e.g. vigilance control, minimisation of noise exposure).

5. Social standards in the supply chain (only applicable for newly produced vehicles)

Possible quantitative indicator:

- Percentage of loans allocated to vehicle manufacturers that require high labour and health and safety standards in their supply chain (e.g. ILO core conventions).

Controversies

- Description of controversial projects (e.g. due to labour rights violations, environmental accidents, adverse biodiversity impacts).

3.2 Public transport – Public transport infrastructure

1. Consideration of environmental impacts during planning (only applicable for infrastructure construction and large-scale infrastructure operation)

Possible quantitative indicators:

- Percentage of funds allocated to projects that underwent environmental impact assessments at the planning stage.
- Percentage of funds allocated to projects that meet high environmental standards and requirements during the construction phase (e.g. minimisation of environmental impact during construction work).

2. Community dialogue (only applicable for infrastructure construction and large-scale infrastructure operation)

Possible quantitative indicator:

- Percentage of loans allocated to projects that feature community dialogue as an integral part of the planning process and construction phase (e.g. sound information of communities, community advisory panels and committees, surveys and dialogue platforms, grievance mechanisms and compensation schemes).

3. Working conditions during construction, operation and maintenance

Possible quantitative indicators:

- Percentage of loans allocated to projects with high labour and health and safety standards for operation of trains conducted by own employees and contractors (e.g. ILO core conventions).
- Percentage of loans allocated to projects with high labour and health and safety standards for maintenance work conducted by own employees and contractors (e.g. ILO core conventions).

4. Transport safety

Possible quantitative indicators:

- Percentage of loans allocated to projects that have a safety management system in place (i.e. policies, responsibilities, risk assessments and monitoring, training, emergency management).
- Percentage of loans allocated to projects for which measures to avoid fatigue of train operators are in place (e.g. maximum shift duration, monitoring levels of fatigue).

5. Social aspects of public transport infrastructure

Possible quantitative indicator:

- Percentage of loans allocated to projects for which the accessibility for all customer groups is ensured (e.g. through assistance services, barrier-free access to trains and platforms).

6. Environmental aspects of public transport infrastructure

Possible quantitative indicators:

- Percentage of loans allocated to projects for which measures to reduce transport-related air emissions are in place (not applicable for electric services).
- Percentage of loans allocated to projects that operate energy efficient vehicles (e.g. trains equipped with energy recovery systems, lightweight design).

- Percentage of loans allocated to projects for which measures to optimise energy efficiency are in place for both vehicle and network operation (e.g. computer aided train operation, passenger load factor monitoring, energy efficient lighting at train stations).
- Percentage of loans allocated to projects for which measures to reduce transport-related noise emissions are in place (e.g. low-noise tracks).
- Percentage of loans allocated to projects for which the environmentally friendly disposal of the fleet is guaranteed by the operator.

7. Social standards in the supply chain (only applicable for infrastructure construction)

Possible quantitative indicator:

- Percentage of loans allocated to projects for which high labour and health and safety standards are applied in their supply chain (e.g. ILO core conventions).

Controversies

- Description of controversial projects (e.g. due to labour rights violations, environmental accidents, adverse biodiversity impacts).

Project category 4: Waste

Project category 4.1: Waste – Recycling

1. Consideration of environmental aspects during planning and construction

Possible quantitative indicators:

- Percentage of loans allocated to projects that underwent environmental impact assessments at the planning stage.
- Percentage of loans allocated to projects for which the location in key biodiversity areas can be excluded (e.g. exclusion of Ramsar sites, UNESCO Natural World Heritage, IUCN protected areas I-IV).
- Percentage of loans allocated to projects that meet high environmental standards and requirements during the construction phase (e.g. noise mitigation, minimisation of environmental impact during construction work).

2. Working conditions during construction and operation

Possible quantitative indicators:

- Percentage of loans allocated to projects with high labour and health and safety standards for construction work conducted by own employees and contractors (e.g. ILO core conventions).
- Percentage of loans allocated to projects with high labour and health and safety standards for operational tasks conducted by own employees and contractors (e.g. ILO core conventions).
- Percentage of loans allocated to projects for which safe handling of materials is ensured (e.g. counselling and training of staff regarding material-specific health and safety issues, comprehensive safety information).

4. Environmental aspects of recycling

Possible quantitative indicators:

- Percentage of loans allocated to projects that have a comprehensive environmental management system in place.
- Percentage of loans allocated to projects for which hazardous substances management is in place (e.g. treatment, storage and disposal of hazardous substances).

5. Community dialogue

Possible quantitative indicator:

- Percentage of loans allocated to projects that feature community dialogue as an integral part of the planning process and construction phase (e.g. sound information of communities, community advisory panels and committees, surveys and dialogue platforms, grievance mechanisms and compensation schemes).

6. Social standards in the supply chain

Possible quantitative indicator:

- Percentage of loans allocated to vehicle manufacturers that require high labour and health and safety standards in their supply chain (e.g. ILO core conventions).

Controversies

- Description of controversial projects (e.g. due to labour rights violations, environmental accidents, adverse biodiversity impacts).

Possible impact indicators: Materials recycled

- Materials recycled (in m³) by the recycling projects per year.
- Total annual avoidance of resource use by the recycling projects (in m³); based on the material intensity of the relevant (e.g. country, industry) material use.

Project category 4.2: Waste – Reuse of waste (gases)

1. Consideration of environmental aspects during planning and construction

Possible quantitative indicators:

- Percentage of projects that underwent environmental impact assessments at the planning stage.
- Percentage of projects for which the location in key biodiversity areas can be excluded (e.g. exclusion of Ramsar sites, UNESCO Natural World Heritage, IUCN protected areas I-IV).
- Percentage of projects that meet high environmental standards and requirements during the construction phase (e.g. noise mitigation, minimisation of environmental impact during construction work).

2. Environmental aspects of LFG power plants

Possible quantitative indicator:

- Percentage of loans allocated to projects for which the conversion efficiency is at least 25%.

3. Safety aspects of LFG power plants

Possible quantitative indicator:

- Percentage of loans allocated to projects that ensure safety at LFG power plants (e.g. employee protection from explosion through security, alarm and monitoring systems).

4. Community dialogue

Possible quantitative indicator:

- Percentage of loans allocated to projects that feature community dialogue as an integral part of the planning process and construction phase (e.g. sound information of communities, community advisory panels and committees, surveys and dialogue platforms, grievance mechanisms and compensation schemes).

5. Working conditions during construction and operation

Possible quantitative indicators:

- Percentage of loans allocated to projects with high labour and health and safety standards for construction work conducted by own employees and contractors (e.g. ILO core conventions).
- Percentage of loans allocated to projects with high labour and health and safety standards for operational tasks conducted by own employees and contractors (e.g. ILO core conventions).

6. Social standards in the supply chain

Possible quantitative indicator:

- Percentage of loans allocated to projects for which high labour and health and safety standards are applied in the supply chain (e.g. ILO core conventions).

Controversies

- Description of controversial projects (e.g. due to labour rights violations, environmental accidents, adverse biodiversity impacts).

Possible impact indicators:

- Total annual energy production by the LFG power projects (in kWh).
- Total annual avoidance of CO₂e emissions through the LFG power projects (in t); based on the carbon intensity of the relevant country's / region's energy mix.

Project category 5: Water

Project category 5.1: Water – Wastewater treatment

1. Consideration of environmental aspects during planning and construction

Possible quantitative indicators:

- Percentage of loans allocated to projects that underwent environmental impact assessments at the planning stage.
- Percentage of loans allocated to projects for which the location in key biodiversity areas can be excluded (e.g. exclusion of Ramsar sites, UNESCO Natural World Heritage, IUCN protected areas I-IV).
- Percentage of loans allocated to projects that meet high environmental standards and requirements during the construction phase (e.g. noise mitigation, minimisation of environmental impact during construction work).

2. Environmental impacts of wastewater treatment plants

Possible quantitative indicators:

- Percentage of loans allocated to projects for which measures to prevent leakage of sewerage systems are in place (e.g. monitoring systems, adequate maintenance and repair).
- Percentage of loans allocated to projects for which measures to reduce the environmental impacts of sewage sludge disposal are in place (e.g. exclusion of introduction into waterways and landfill, exclusion or standards for agricultural use, utilisation of energy).
- Percentage of loans allocated to projects that apply high standards regarding the quality of the treated water.

Possible quantitative indicator (only applicable for treatment plants combined with biomass power generation):

- Percentage of loans allocated to projects for which conversion efficiency is at least 80% for cogeneration or for which the conversion efficiency for power generation is at least 30%.

3. Community dialogue

Possible quantitative indicator:

- Percentage of loans allocated to projects that feature community dialogue as an integral part of the planning process and construction phase (e.g. sound information of communities, community advisory panels and committees, surveys and dialogue platforms, grievance mechanisms and compensation schemes).

4. Working conditions during construction and operation

Possible quantitative indicators:

- Percentage of loans allocated to projects with high labour and health and safety standards for construction work conducted by own employees and contractors (e.g. ILO core conventions).
- Percentage of loans allocated to projects with high labour and health and safety standards for operational tasks conducted by own employees and contractors (e.g. ILO core conventions).

Controversies

- Description of controversial projects (e.g. due to labour rights violations, environmental accidents, adverse biodiversity impacts).

Project category 5.2: Water – Water recycling

1. Consideration of environmental aspects during planning and construction

Possible quantitative indicators:

- Percentage of loans allocated to projects that underwent environmental impact assessments at the planning stage.
- Percentage of loans allocated to projects that meet high environmental standards and requirements during the construction phase (e.g. noise mitigation, minimisation of environmental impact during construction work).

2. Working conditions during construction and operation

Possible quantitative indicators:

- Percentage of loans allocated to projects with high labour and health and safety standards for construction work conducted by own employees and contractors (e.g. ILO core conventions).
- Percentage of loans allocated to projects with high labour and health and safety standards for operational tasks conducted by own employees and contractors (e.g. ILO core conventions).

3. Environmental impacts of water treatment

Possible quantitative indicators:

- Percentage of loans allocated to projects for which measures to prevent leakage of sewerage systems are in place (e.g. monitoring systems, adequate maintenance and repair).
- Percentage of loans allocated to projects for which measures to reduce the environmental impacts of sewage sludge disposal are in place (e.g. exclusion of introduction into waterways and landfill, exclusion or standards for agricultural use, utilisation of energy).
- Percentage of loans allocated to projects that apply high standards regarding the quality of the treated water.

4. Community dialogue

Possible quantitative indicator:

- Percentage of loans allocated to projects that feature community dialogue as an integral part of the planning process and construction phase (e.g. sound information of communities, community advisory panels and committees, surveys and dialogue platforms, grievance mechanisms and compensation schemes).

5. Social standards in the supply chain

Possible quantitative indicator:

- Percentage of loans allocated to projects for which high labour and health and safety standards are applied in the supply chain (e.g. ILO core conventions).

Controversies

- Description of controversial projects (e.g. due to labour rights violations, environmental accidents, adverse biodiversity impacts).

Possible impact indicators: Water recycled

- Water recycled (in m³) by the water recycling projects per year.
- Total annual avoidance of fresh water use by the water recycling projects (in m³); based on the water intensity of the relevant (e.g. industry) water use.

Project Category 5.3: Water – Flood prevention (no dams)

1. Consideration of environmental aspects during planning and construction

Possible quantitative indicators:

- Percentage of loans allocated to projects that underwent environmental impact assessments at the planning stage.
- Percentage of loans allocated to projects that meet high environmental standards and requirements during the construction phase (e.g. noise mitigation, minimisation of environmental impact during construction work).

2. Working conditions during construction and operation

Possible quantitative indicators:

- Percentage of loans allocated to projects with high labour and health and safety standards for construction work conducted by own employees and contractors (e.g. ILO core conventions).
- Percentage of loans allocated to projects with high labour and health and safety standards for operational tasks conducted by own employees and contractors (e.g. ILO core conventions).

3. Modelling on natural state of water bodies, scientific monitoring, structural quality mapping

Possible quantitative indicator:

- Percentage of loans allocated to projects for which the relevant plans are scientifically monitored and are modelled on the natural state of the water body.

4. Community dialogue

Possible quantitative indicator:

- Percentage of loans allocated to projects that feature community dialogue as an integral part of the planning process and construction phase (e.g. sound information of communities, community advisory panels and committees, surveys and dialogue platforms, grievance mechanisms and compensation schemes).

5. Social standards in the supply chain

Possible quantitative indicator:

- Percentage of loans allocated to projects for which high labour and health and safety standards are applied in the supply chain (e.g. ILO core conventions).

Controversies

- Description of controversial projects (e.g. due to labour rights violations, environmental accidents, adverse biodiversity impacts).

Project Category 6: Energy efficiency

1. Percentage improvement of energy and resource efficiency

Possible quantitative indicator:

- Percentage of loans allocated to projects for which the percentage improvement reaches or exceeds 20% for energy efficiency and / or 10% for resource efficiency.

2. Exclusion of controversial business areas

Possible quantitative indicator:

- Percentage of loans allocated to projects which are not involved in any controversial business areas, such as for example armaments, crude oil, coal, nuclear power, pesticides and / or tobacco.

3. Consideration of environmental aspects during planning and construction

Possible quantitative indicators:

- Percentage of loans allocated to projects that underwent environmental impact assessments at the planning stage.
- Percentage of loans allocated to projects that meet high environmental standards and requirements during the construction phase (e.g. noise mitigation, minimisation of environmental impact during construction work).

4. Working conditions during construction and operation

Possible quantitative indicators:

- Percentage of loans allocated to projects with high labour and health and safety standards for construction work conducted by own employees and contractors (e.g. ILO core conventions).
- Percentage of loans allocated to projects with high labour and health and safety standards for operational tasks conducted by own employees and contractors (e.g. ILO core conventions).

5. Community dialogue

Possible quantitative indicator:

- Percentage of loans allocated to projects that feature community dialogue as an integral part of the planning process and construction phase (e.g. sound information of communities, community advisory panels and committees, surveys and dialogue platforms, grievance mechanisms and compensation schemes).

6. Social standards in the supply chain

Possible quantitative indicator:

- Percentage of loans allocated to projects for which high labour and health and safety standards are applied in the supply chain (e.g. ILO core conventions).

Controversies

- Description of controversial projects (e.g. due to labour rights violations, environmental accidents, adverse biodiversity impacts).

Possible Impact Indicators: Avoidance of CO₂ emissions

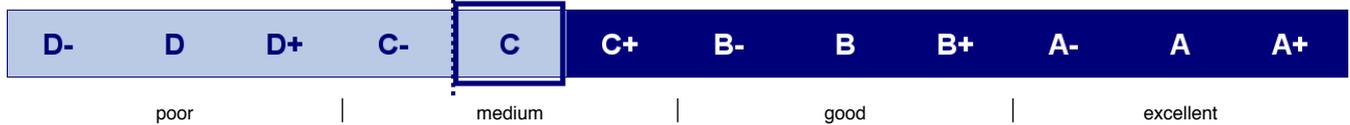
- Total annual avoidance of CO₂ emissions by the energy efficiency projects (in t); based on the carbon intensity of the relevant (e.g. country) energy mix.
- Total annual avoidance of resource use by the energy efficiency projects (in t); based on the resource intensity of the relevant (e.g. industry) resource use.

oekom Corporate Rating

ING Bank NV

Industry: Financials/Commercial Banks & Capital Markets
 GICS Industry: #N/A
 Country: Netherlands
 ISIN: XS0995102695
 Bloomberg Ticker: 1111Z NA Equity

Status: **Prime**
 Rating: **C**
 Prime Threshold: **C**



Competitive Position

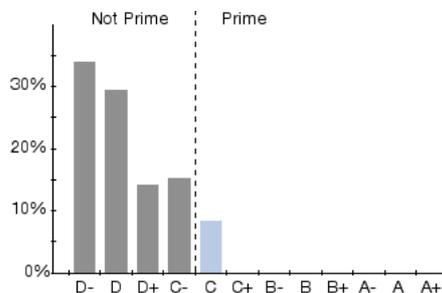
Industry Leaders

(in alphabetical order)

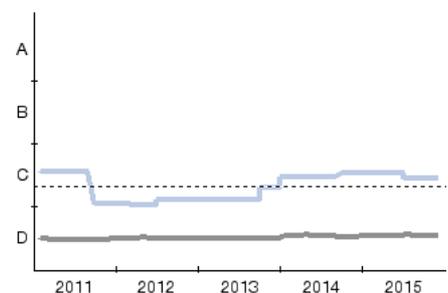
- DNB ASA (NO)
- Nedbank Group Ltd (ZA)
- SNS REAAL NV (NL)

Distribution of Ratings

(292 companies in the industry)



Rating History



Key Issues

Key Issue Performance



Strengths and Weaknesses

- + reasonable integration of environmental and social aspects into the lending business
- + some measures regarding responsible treatment of customers with debt repayment problems
- + integration of some environmental and social aspects into the company's own investment portfolio
- + reasonable range of sustainable investment products and services
- lack of information regarding a strategy on offshore banking activities and tax compliance
- limited consideration of environmental aspects in the credit rating process for private customers

Controversy Monitor

Company

Controversy Score: -2
 Minor

Industry

Controversy Score: -36
 Significant



Disclaimer

- oekom research AG uses a scientifically based rating concept to analyse and evaluate the environmental and social performance of companies and countries. In doing so, we adhere to the highest quality standards which are customary in responsibility research worldwide.
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ING Bank NV

Methodology - Overview

oekom Corporate Rating	<p>The oekom Universe comprises more than 3,500 companies (mostly companies in important national and international indices, but also small & mid caps drawn from sectors with links to sustainability as well as significant non-listed bond issuers).</p> <p>The assessment of the social and environmental performance of a company is generally carried out with the aid of approx. 100 social and environmental criteria, selected specifically for each industry. All criteria are individually weighted, evaluated and aggregated to yield an overall score (Rating). In case there is no relevant or up-to-date company information available on a certain criterion, it is graded with a D-.</p> <p>In order to generate a comprehensive picture of each company, our analysts collect information relevant to the rating both from the company itself and from independent sources. During the rating process, considerable importance is attached to cooperating extensively with the company under evaluation. Companies are regularly given the opportunity to comment on the results and provide additional information.</p> <p>An external rating committee assists the analysts at oekom research with the content-related design of industry-specific criteria and carries out a final plausibility check of the rating results at the end of the rating process.</p>
Controversy Monitor	<p>The oekom Controversy Monitor is a tool for assessing and managing reputational and financial risks associated with companies' negative environmental and social impacts.</p> <p>The controversy score is a measure of the number and extent of the controversies in which a company is currently involved: all controversial business areas and business practices are assigned a negative score, which varies depending on the significance and severity of the controversy. Both the score of the portrayed company and the maximum score obtained in the industry are displayed.</p> <p>For better classification, the scores are assigned to different levels: minor, moderate, significant and severe. The industry level relates to the average controversy score.</p> <p>Only controversies, for which reliable information from trustworthy sources is available, are recorded. It should be noted that large international companies are more often the focus of public and media attention and available information is often more comprehensive than for less prominent companies.</p>
Distribution of Ratings	<p>Overview of the distribution of all company ratings of an industry from the oekom Universe (company portrayed in this report: light blue). The industry-specific Prime threshold (vertical dotted line) is also shown.</p>
Industry Classification	<p>The social and environmental impacts of industries differ. Therefore, subject to its relevance, each industry analysed is classified in a Sustainability Matrix.</p> <p>Depending on this classification, the two dimensions of the oekom Corporate Rating, i.e. the Social Rating and the Environmental Rating, are weighted and the sector-specific minimum requirements for the oekom Prime Status (Prime threshold) are defined (absolute best-in-class approach).</p>
Industry Leaders	<p>List (in alphabetical order) of the top three companies in an industry from the oekom Universe at the time of generation of this report.</p>
Key Issue Performance	<p>Overview of the company's performance with regard to important social and environmental issues that are key to the industry, compared to the industry average.</p>
Rating History	<p>Trend in the company's rating over time and comparison to the average rating in the industry.</p>
Rating Scale	<p>Companies are rated on a twelve-point scale from A+ to D-:</p> <ul style="list-style-type: none"> A+: the company shows excellent performance. D-: the company shows poor performance. <p>Overview of the range of scores achieved in the industry (light blue) and display of the industry-specific Prime threshold (vertical dotted line).</p>
Sources of Information	<p>Data for the Bloomberg Ticker, Company Name, Country, GICS Industry and ISIN was sourced from Bloomberg.</p>
Status & Prime Threshold	<p>Companies are categorised as Prime if they achieve/exceed the minimum sustainability performance requirements (Prime threshold) defined by oekom for a specific industry (absolute best-in-class approach) in the oekom Corporate Rating. Prime companies rank among the leaders in that industry.</p>
Strengths & Weaknesses	<p>Overview of selected strengths and weaknesses of a company with regard to relevant social and environmental criteria.</p>

