



Verification of the Sustainability Quality of the 1st Green Bond by Kanton Basel-Stadt

20 September 2018

Aim and Scope of this Second Party Opinion

Kanton Basel-Stadt commissioned ISS-oekom to assist with the issuance of its inaugural Green Bond by assessing the sustainable added value of its assets. The assessment of the assets was conducted using the criteria and indicators of the Green Bond KPIs developed by ISS-oekom.

ISS-oekom's mandate included the following services:

- Definition of Green Bond KPIs ("ISS-oekom Green Bond KPIs") containing a clear description of eligible asset categories and the social and environmental criteria assigned to each category for evaluating the sustainability-related performance of the assets (re-) financed through the proceeds of the bond.
- Analysis of the alignment of the Green Bond to be issued against ICMA's Green Bond Principles.
- Evaluation of compliance of the Green Bond with the ISS-oekom Green Bond KPIs.
- Review and classification of Switzerland's sustainability performance on the basis of the ISS-oekom Country Rating

Overall Evaluation of the Green Bond Portfolio

ISS-oekom's overall evaluation of the Green Bond by Kanton Basel-Stadt is positive:

- Kanton Basel-Stadt has defined a formal concept for its Green Bond Programme regarding use of proceeds, processes for project evaluation and selection, management of proceeds and reporting. This concept is in line with the Green Bond Principles (Part I of this Second Party Opinion).
- The overall sustainability quality in terms of sustainability benefits and risk avoidance and minimisation is good. (Part II of this Second Party Opinion).
- The country of which the issuer is part of, shows an good sustainability performance (Part III of this Second Party Opinion).

Certain minor aspects could still add to the overall quality of the asset pool: more specific selection or performance criteria would be recommended for Green Buildings with sustainability certifications and labels.

1) Use of Proceeds

The proceeds of this Green Bond will be used exclusively to finance Green Eligible Projects falling in the Green Buildings category.

The buildings are all located in the city of Basel (Switzerland) and include administrative assets (Verwaltungsvermögen) and financial assets (Finanzvermögen).

Here are described the eligibility criteria:

Administrative assets (Verwaltungsvermögen)

- Criteria for newbuilds (at least one of the following energy efficiency and ecological criteria)
 - Minergie Minergie®-P/-A/-ECO- Standard or
 - SNBS – Standard Gold or
 - 2000 Watt-Areal® - Standard or
 - Compatibility with "SIA-Effizienzpfad Energie"
- Criteria for renovations/refurbishments (at least one of the following energy efficiency and ecological criteria)
 - Minergie®/-P/-A/-ECO - Standard refurbishments or
 - Reduction of 25% compared to SIA requirements for refurbishments (QH,li / SIA 308/1) or
 - GEAK® Plus Label with improvement of at least one category or
 - Energy measures such as thermal insulation, climate-friendly heat generation (thermic solar systems, heat pumps, regenerative energy sources, heat recovery...), PV installations or
 - Minergie – Eco Standard for refurbishments or
 - Ecological measures such as resource-saving development through the reuse of existing infrastructure (reduction of embodied energy), use of resource-saving construction methods (wood constructions) or use of recycled material (recycled concrete, wood, recycled insulation materials).

Financial assets (Finanzvermögen)

- Criteria for newbuilds (at least one of the following energy efficiency and ecological criteria)
 - Minergie Minergie®-P/-A/-ECO- Standard or
 - SNBS – Standard Gold or
 - 2000 Watt-Areal® - Standard or
 - Compatibility with "SIA-Effizienzpfad Energie"

and possibly the following social criteria

- Concession of construction royalties or
- accessible living space according legislation (Wohnraumfördergesetz) or
- housing in urban centers or
- mixed use infrastructures.

- Criteria for renovations/refurbishments (at least one of the following energy efficiency and ecological criteria)
 - Minergie®/P-/ECO - Standard refurbishments or
 - Reduction of 25% compared to SIA requirements for refurbishments (QH,li / SIA 308/1) or
 - GEAK® Plus Label with improvement of at least one category or
 - Energy measures such as thermal insulation, climate-friendly heat generation (termic solar systems, heat pumps, regenerative energy sources, heat recovery...), PV installations or
 - Minergie – Eco Standard for refurbishments or
 - Ecological measures such as resource-saving development through the reuse of existing infrastructure (reduction of embodied energy), use of resource-saving construction methods (wood constructions) or use of recycled material (recycled concrete, wood, recycled insulation materials).

and possibly the following social criteria

- Concession of construction royalties or
- accessible living space according legislation (Wohnraumfördergesetz) or
- housing in urban centers or
- mixed use infrastructures.

2) Process for Project Evaluation and Selection

The financial administration of the financial department of Kanton Basel-Stadt, in cooperation with Immobilien Basel-Stadt, will review the evaluation and the selection of the green projects according to the criteria listed above.

Only eligible projects following Kanton Basel-Stadt's selection criteria will be included in this Green Bond.

3) Management of Proceeds

The proceeds of the Bond will exclusively be used to finance green projects. If the volume of proceeds exceeds at any time the number of financing needed for the green projects, the remaining funds shall be held on a purposely designated bank account.

4) Reporting

Kanton Basel-Stadt commits to report on the use of proceeds of the Green Bond on its financial administration homepage (<http://www.fv.bs.ch/finanzkennzahlen-rating.html>)

1) ISS-oekom Green Bond KPIs

The ISS-oekom Green Bond KPIs serve as a structure for evaluating the sustainability quality – i.e. the social and environmental added value – of the use of proceeds of Kanton Basel-Stadt's Green Bond. It comprises firstly the definition of the use of proceeds category offering added social and/or environmental value and secondly the specific sustainability criteria by means of which this added value and therefore the sustainability performance of the Green Bond can be clearly identified and described.

The sustainability criteria are complemented by specific indicators, which enable quantitative measurement of the sustainability performance of the Green Bond and which can also be used for reporting. Details on the individual criteria and indicators for the categories can be found in Annex 1 „ISS-oekom Green Bond KPIs“.

2) Evaluation of the Assets Financed by the Green Bond**Method**

ISS-oekom has evaluated whether the assets included in the Green Bond match the categories and criteria listed in the ISS-oekom Green Bond KPIs.

The evaluation was carried out using information and documents provided to ISS-oekom on a confidential basis by Kanton Basel-Stadt (e.g. information on credit guidelines).

Due to the size of the asset pool, ISS-oekom proceeded with sampling per project category, given the homogeneity in location of the projects. National legislation and standards were drawn on to complement the information provided by Kanton Basel-Stadt.

Findings

A. Green Buildings

Sustainability Benefits and Risks of the Asset 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 sustainability risks to be taken into account. Possible social risks stem from working conditions at construction sites, 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 Switzerland, a highly-regulated and developed country.

- ✓ **Prerequisite for Green Buildings: All projects underwent an appropriate and detailed selection process that ensures good standards regarding energy efficiency, as described in the “Use of Proceeds” part of this Second Party Opinion.**
- 1. Site selection
 - ✓ All the projects are located in the city of Basel, in brownfield areas and not in sites of high environmental value.
 - ✓ All the projects are located within 1 km from one or more modalities of public transport.
- 2. Construction standards
 - ✓ All the projects provide for high labour and health and safety standards (e.g. ILO core conventions).
 - ✓ All the projects provide for sustainable procurement regarding building materials (e.g. recycled materials, third-party certification of wood based materials).
- 3. Water use minimisation in buildings
 - ✓ 4 projects out of 5, accounting 89% of the asset pool, provide for measures to reduce water consumption (e.g. water metering, high-efficiency fixtures and fittings, rainwater harvesting). For the remaining project, measures are not sufficient.
- 4. Safety of building users
 - ✓ All the projects provide for measures to ensure operational safety (e.g. emergency exits, fire sprinklers, fire alarm systems).
- 5. Sustainability labels / Certificates
 - For 3 projects out of 5, accounting for 63% of the asset pool, a (or an equivalent of a) BREEAM “Very Good”, DGNB „Silver / Gold“¹, LEED “Gold”, HQE „excellent“ certificate or better

¹ 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.

certification was not obtained. 2 projects, accounting for 37% of the asset, obtained a SNBS “Gold” and Minergie A ECO certifications, showing equivalent sustainability performances.

Controversy Assessment

A controversy assessment on the projects did not reveal any controversies that can be attributed to Kanton Basel-Stadt.

“Bronze” will only be used for existing buildings in the future. The evaluation system and the assessment methodology remain unchanged.

Part III – Assessment of Switzerland’s Sustainability Performance

In the ISS-oekom Country Rating with a rating scale from A+ (excellent) to D- (poor), Switzerland was awarded a score of B+ and classified as “Prime”. This means that the country performed well in terms of sustainability. In ISS-oekom’s view, the securities issued by the country thus all meet the basic requirements for sustainable investments.



As of 20.09.2018, this rating puts Switzerland in place 3 out of 60 countries rated by ISS-oekom.

The ISS-oekom Country Rating evaluates the following six areas in order to determine the sustainability performance of a country:

Social Rating

- Political System and Governance
- Human Rights and Fundamental Freedoms
- Social Conditions

Environmental Rating

- Natural Resources
- Climate Change and Energy
- Production and Consumption

In all six of these areas, Switzerland achieved a rating that was above the average. A very significant outperformance was achieved in “Political System and Governance”.

Switzerland violates the exclusion criteria Nuclear Power and Euthanasia, screened by ISS oekom.

Details on Switzerland’s rating can be found in Annex 2 “Country rating results”.

A handwritten signature in blue ink, appearing to read "J. G. G. G.", is written over a faint circular stamp.

ISS-oekom

Munich, 20 September 2018

Disclaimer

1. ISS-oekom 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.
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3. All statements of opinion and value judgements given by us do not in any way constitute purchase or investment recommendations. In particular, the SPO is no assessment of the economic profitability and credit worthiness of a bond, but refers exclusively to the social and environmental criteria mentioned above.
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About ISS-oekom

ISS-oekom 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. ISS-oekom 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. ISS-oekom'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.

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Annexes

- Annex 1: ISS-oekom Green Bond KPIs
- Annex 2: ISS-oekom Country Rating of Switzerland

Annex 1: ISS-oekom Green Bond KPIs

ISS-oekom Green Bond KPIs

The ISS-oekom Green Bond KPIs serve as a structure for evaluating the sustainability quality – i.e. the social and environmental added value – of the use of proceeds of Kanton Basel-Stadt's Green Bond. It comprises firstly the definition of the use of proceeds category offering added social and/or environmental value and secondly the specific sustainability criteria by means of which this added value and therefore the sustainability performance of the Green Bond can be clearly identified and described.

The sustainability criteria are complemented by specific indicators, which enable quantitative measurement of the sustainability performance of the Green Bond and which can be used for comprehensive reporting.

Use of Proceeds

A. Green Buildings

Sustainability Criteria and Quantitative Indicators for Use of Proceeds

A. Green Buildings

Prerequisite for Green Buildings: All projects underwent an appropriate and detailed selection process that ensures good standards regarding energy efficiency.

1. Site selection

- Percentage of assets for which a policy on responsible site selection is in place (e.g. brownfield development, exclusion of protected areas and sites of high environmental value).
- Percentage of assets located within a maximum of 1 km from one or more modalities of public transport.

2. Construction standards

- Percentage of assets that provide for high labour and health and safety standards (e.g. ILO core conventions).
- Percentage of assets that provide for sustainable procurement regarding building materials (e.g. recycled materials, third-party certification of wood based materials).

3. Water use minimisation in buildings

- Percentage of assets that provide for measures to reduce water consumption (e.g. water metering, high-efficiency fixtures and fittings, rainwater harvesting).

4. Safety of building users

- Percentage of assets that provide for measures to ensure operational safety (e.g. emergency exits, fire sprinklers, fire alarm systems).

5. Sustainability labels / Certificates

- Percentage of assets that obtained a (or an equivalent of a) BREEAM “Very Good”, DGNB „Silver / Gold“², LEED “Gold”, HQE „excellent“ certificate or better certification.

Controversy Assessment

Assessment of controversial assets (e.g. labour rights violations, insufficient community dialogue).

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.

ISS-oekom Country Rating
Switzerland

Status **Prime**
Rating **B+**
Prime Threshold **B-**

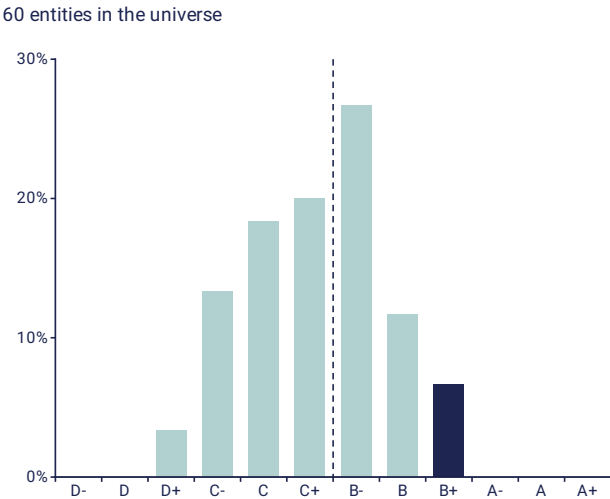


Country Leaders

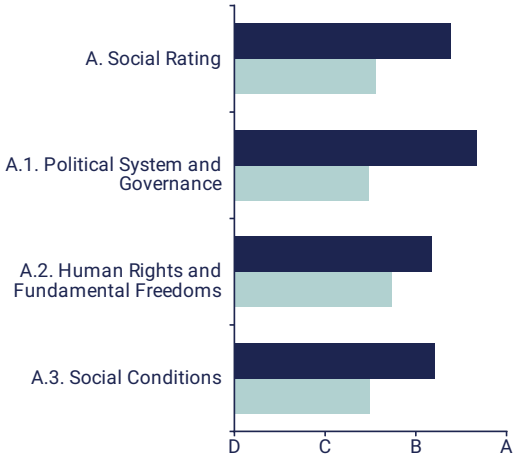
Country (in alphabetical order)	Grade
Norway	B+
Sweden	B+
Switzerland	B+

Legend:  Universe  Country --- Prime

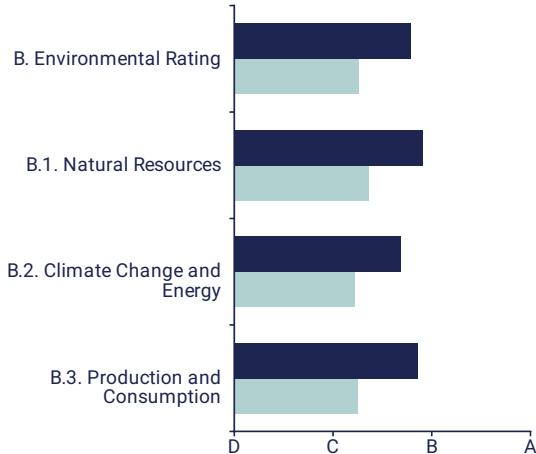
Distribution of Ratings



Governance and Social Performance



Environment Performance



Switzerland

Additional Country Information

Country Profile

Politics and Geography

National territory (2017):	41290 [km2]
Capital (2018):	Bern
Climate (2018):	temperate oceanic, tundra
Government type (2018):	federal republic (formally a confederation)

Population

National population (2017):	8236000 [people]
Population change (2016):	1.08 [in %]
Population density (2017):	199.47 [persons per km2]
Urban population (2016):	74.0 [as % of total]

Economy and Society

GDP per capita (2016):	59675 [in USD (PPP)]
Income group (2017):	high income
Real GDP growth (2016):	1.4 [in %]
Consumer prices (2016):	0 [in %]
Current account balance (2016):	10.5 [as % of GDP]
General government gross debt (2016):	43.3 [as % of GDP]
Budget deficit (2016):	0.1 [in %]
Unemployment rate (2016):	3.3 [as % of labour force]
Human Development Index (2015):	2 [index rank]

Switzerland

Methodology - Overview

ISS-oekom Country Rating – The ISS-oekom country Universe comprises 58 countries, as well as Hong Kong and the European Union, representing 96 per cent of global outstanding sovereign debt (as of June 2018).

The assessment of a country's sustainability performance is based on approximately 100 environmental, social and governance criteria with equal weight assigned to the social and environmental dimension. All criteria are individually weighted and evaluated and the results are aggregated to yield an overall score (rating). The selection of criteria is derived from ISS-oekom's understanding of sustainability and reflects various global challenges that are embodied in the Sustainable Development Goals. Criteria are selected according to their relevance (materiality) and the quality of data regarding availability, up-to-dateness and consistency for all the countries rated.

Country controversies – In addition to the rating, ISS-oekom conducts a comprehensive analysis of relevant controversies. Thereby, our clients have the possibility to consider, either separately or in addition to the rating, circumstances in areas they view as especially critical. The country controversy assessment is either directly derived from information provided by credible and acknowledged external sources, such as indices or blacklists, or it is based on the country's performance in the respective rating section. In the latter cases, underperformance in a specific set of indicators constitutes a controversy. Some controversy issues are delineated on different levels of severity.

Country leaders - List (in alphabetical order) of the top three countries from the ISS-oekom Universe at the time of generation of this report.

Criteria design – The rating comprises both qualitative and quantitative criteria. For instance, the safeguarding of fundamental freedoms by a country's government is mostly assessed in qualitative terms, while a country's consumption of resources is quantified. Qualitative criteria are evaluated against absolute targets and/or best practices, the assessment of quantitative indicators is based on thresholds. Those either reflect normative considerations and/or relative performance in a given area. In order to ensure their validity, some quantitative indicators are normalised against eligible denominators. To assess the quality of government policy in a specific area, we use indicators measuring input, such as spending on education as a proportion of GDP, as well as criteria measuring output, such as female participation in education.

Distribution of Ratings - Overview of the distribution of the ratings of all countries that are included in the ISS-oekom Universe (country portrayed in this report: dark blue).

Rating Scale – countries are rated on a twelve-point scale from A+ to D-:

A+: the country shows excellent performance

D-: the country shows poor performance

Overview of the range of scores achieved in the ISS-oekom country Universe (light blue) and indication of the grade of the country evaluated in this report (dark blue).

Sources of Information - The sources we draw on include international institutions such as the World Bank, the International Energy Agency (IEA) and the World Health Organisation (WHO), as well as respected non-governmental organisations such as Amnesty International, Transparency International and the Stockholm International Peace Research Institute (SIPRI). A selection of sources used for this report is illustrated in the annex.

Status & Prime Threshold – Countries are categorised as Prime if they achieve/exceed the minimum sustainability performance requirements (Prime threshold) defined by ISS-oekom for the Country Rating.

Update cycle - The vast majority of rating criteria is updated annually, only single indicators receive event-driven updates. The exact timing is determined by the publication dates of major sources of information.