

STATE TREASURY OF THE REPUBLIC OF POLAND

Represented by the Minister of Development and Finance

GREEN BOND FRAMEWORK

SECOND PARTY OPINION BY SUSTAINALYTICS

December 5th, 2016



SUSTAINALYTICS

www.sustainalytics.com

Trisha Taneja (Toronto)
Advisor, Advisory Services
trisha.taneja@sustainalytics.com
(+1) 647 317 3695

Charlotte Peyraud (New York)
Senior Advisor, Institutional Relations
charlotte.peyraud@sustainalytics.com
(+1) 646 518 0184

TABLE OF CONTENTS

1. INTRODUCTION	3
2. SUSTAINALYTICS' OPINION	4
Section 1: Contribution of Use of Proceeds to European Union and Polish Energy and Climate Change Targets	4
Section 2: Impact of Use of Proceeds	5
Renewable Energy Eligible Sector	6
Afforestation Eligible Sector	7
Clean Transportation Eligible Sector	7
Sustainable Agriculture Eligible Sector	8
National Parks Eligible Sector	9
Advancing the Sustainable Development Goals (SDGs)	9
Section 3: Alignment of the Poland Green Bond Framework with the Green Bond Principles 2016	10
APPENDICES	12
Appendix 1: Green Bond/Green Bond Programme External Review Form	12
SUSTAINALYTICS	19

1. INTRODUCTION

The State Treasury of the Republic of Poland represented by the Minister of Development and Finance (State Treasury of Poland) has developed a green bond framework in accordance with which it intends to issue green bonds that will fund environmentally beneficial projects in Poland. This Green Bond Framework has been published in a separate document.¹ The net proceeds of each green bond will be used to refinance or finance, in whole or in part, existing (re-financing) and future projects that have environmental benefits, that promote Poland's progress in meeting its greenhouse gas (GHG) emission reduction commitments, and that promote the country's transition to a low-emissions economy. The green bonds will fund projects in six eligible sectors, as defined in the Green Bond Framework. These eligible sectors are-

1. Renewable Energy
2. Clean Transportation
3. Sustainable Agricultural Operations
4. Afforestation
5. National Parks
6. Reclamation of Heaps

The State Treasury of Poland has engaged Sustainalytics to provide a second-party opinion on The State Treasury of the Republic of Poland represented by the Minister of Development and Finance Green Bond Framework (Poland Green Bond Framework). As part of this engagement process, Sustainalytics held conversations with the Ministry of Finance of Poland². These conversations clarified the use of proceeds, management of proceeds and reporting aspects of the Poland Green Bond Framework as well as the environmental and climate change targets of Poland. Sustainalytics also reviewed relevant public documents and non-public documents relating to the eligible projects under the Poland Green Bond Framework to provide its opinion on the Poland Green Bond Framework. This document contains Sustainalytics' opinion on the Poland Green Bond Framework and should be read in conjunction with that Framework.

¹ The State Treasury of the Republic of Poland represented by the Minister of Development and Finance Green Bond Framework is publicly available on website: <http://www.finanse.mf.gov.pl/en/web/wp/public-debt/international-bonds/issuance-procedures>.

² Sustainalytics held conversations with the Ministry of Finance as a representative of the State Treasury of the Republic of Poland.

2. SUSTAINALYTICS' OPINION

The following section details Sustainalytics' opinion on the Poland Green Bond Framework, and discusses contribution of the use of proceeds to Polish and European climate change targets, environmental impact of the eligible sectors, and alignment of the Poland Green Bond Framework with the Green Bond Principles 2016.

Section 1: Contribution of Use of Proceeds to European Union and Polish Energy and Climate Change Targets

Sustainalytics has reviewed Poland's climate change strategy and is of the opinion that, as a member of the European Union (EU), Poland is committed to reducing its GHG emissions in line with the below 2°C objective outlined in the Paris Agreement in December 2015. As a member state of the EU, Poland is committed to the Intended Nationally Determined Contribution (INDC) of the EU. The EU INDC commits all member states of the EU to a collective binding target of 40% reduction in GHG emissions by 2030, as compared to 1990.³

To achieve the binding emission reduction commitments, the European Parliament and the Council have set in place a directive for all member states (Directive 2009/28/EC) on the promotion of the use of energy from renewable sources. To fulfill its obligations under this directive, Poland established its National Renewable Energy Action Plan (NREAP) in 2010.⁴ The NREAP sets a national binding target for Poland to increase the share of renewable energy sources in final energy consumption to at least 15% by 2020. The NREAP outlines specific measures that the country is implementing to achieve this target. As of 2011, Poland had established the percent of renewable energy sources in its final energy consumption at roughly 10%⁵, demonstrating progress towards its target of 15% by 2020.

Poland's NREAP also includes a target to build a 10% share of biofuels in the market for transport fuels by 2020. The NREAP specifies maximizing its use of waste biomass to achieve this target in a sustainable manner. In the context of this target, the NREAP also includes an explicit objective to sustainably manage forests and agricultural areas in order to obtain waste biomass for renewable energy use.

In addition to increasing its share of energy from renewable sources to meet its obligation to the collective European GHG emissions reduction target, Poland is also well positioned to reduce GHG emissions through the creation of carbon sinks. Poland's National Programme for the Augmentation of Forest Cover⁶, aims to increase forest cover to 30% by 2020 and to 33% by 2050.⁷ Given that the amount of carbon dioxide (CO₂) absorbed every year by forests (including soil and taking into account utilisation) is

³ <http://www4.unfccc.int/Submissions/INDC/Published%20Documents/Latvia/1/LV-03-06-EU%20INDC.pdf>.

⁴ <http://www.iea.org/policiesandmeasures/pams/poland/name-25100-en.php>.

⁵ <http://www.lse.ac.uk/GranthamInstitute/legislation/countries/poland/>.

⁶ The National Programme for the Augmentation of Forest Cover was prepared by the Forest Research Institute and recommended for implementation by the Council of Ministers in 1995. This programme was also modified in 2002.

⁷ <http://www.lasy.gov.pl/informacje/publikacje/in-english/forests-in-poland/forests-in-poland-2015>.

estimated at 39.5 million tonnes (roughly equivalent to 10.8 million tonnes of carbon)⁸, Poland's afforestation targets can play a significant role in meeting its GHG emissions reduction target.

Sustainalytics is of the opinion that being subject to a concrete, time bound, and binding European target for reduction of GHG emissions, and formalizing that target through a national policy and corresponding national targets, is indicative of the priority Poland assigns to achieving its climate change mitigation goals. The Poland Green Bond Framework (particularly the sectors of Renewable Energy, Afforestation, and Clean Transportation) clearly contributes to achieving Poland's national and European targets.

Given Poland's national and European targets, the country's demonstrated progress towards the target established by its NREAP, and alignment of the Poland Green Bond Framework to support future progress towards these targets, Sustainalytics is of the opinion that the issuance of green bonds under the Poland Green Bond Framework is a step that will help Poland achieve its objective of transitioning to a low-emissions economy.

Section 2: Impact of Use of Proceeds

The Poland Green Bond Framework defines eligible projects in the following Eligible Sectors:

1. Renewable Energy
2. Clean Transportation
3. Sustainable Agricultural Operations
4. Afforestation
5. National Parks
6. Reclamation of Heaps

Overall, Sustainalytics is of the opinion that the proceeds from the bond will have clear positive environmental impacts and contribute to achieving Poland's environmental targets to (i) reduce GHG emissions as a member country of the EU, and (ii) increase its share of energy derived from renewable sources.

Below, Sustainalytics has provided an opinion on the Framework criteria in the following Eligible Sectors: Renewable Energy, Clean Transportation, Sustainable Agricultural Operations, Afforestation, and National Parks.

⁸ <http://www.lasy.gov.pl/informacje/publikacje/in-english/forests-in-poland/forests-in-poland-2015> .

Renewable Energy Eligible Sector

The importance of promoting renewable energy use in Poland

The energy sector (including both supply and demand of energy) is the largest source of GHG emissions in Poland, accounting for 80.6% of the country's GHG emissions in 2012.⁹ A key reason for this is the carbon intensity of Poland's energy mix; in 2011, coal accounted for 55% of Polish primary energy supply and 92% of electricity generation.¹⁰ In the context of this high usage of coal and obligations to meet the European GHG emissions reduction target, efforts to diversify Poland's energy mix and promote the sustained use of renewable sources through the NREAP are particularly important.

In addition, Poland also has tremendous potential to increase its percent of renewable energy sources in final energy consumption beyond the established target. For example, Poland's technical potential for installed renewable energy capacity (including from biomass, solar, wind, and small hydro) is estimated at 940,100 MW¹¹. Of this, Poland has achieved 8,241 MW (as of June 2016),¹² leaving significant untapped potential with respect to the use of energy from renewable sources.

Given the need to sustainably diversify Poland's energy mix while contributing to European and national GHG emissions reduction targets, and Poland's significant untapped potential for installed renewable energy capacity, Sustainalytics is of the opinion that the adoption of renewable energy is a highly important issue for Poland. The State Treasury of Poland's effort to promote the use of renewable energy through its Green Bond Framework is a clear step in the right direction.

The use of biomass as a renewable energy source in Poland

Given the context of Poland's target to build a 10% share of biofuels in the market by 2020, Sustainalytics is of the opinion that generating energy from biomass is an important objective for the country to meet its renewable energy targets.

Sustainalytics recognizes that the burning of viable biological material poses an environmental risk in the use of biomass as a renewable energy source, as it may have greater negative than positive environmental impact. However, Sustainalytics is of the opinion that Poland is well positioned to mitigate this risk, as its NREAP specifies a reference to maximizing the use of waste biomass. Additionally, the State Treasury of Poland has assured Sustainalytics that proceeds from all green bonds issued under this framework will only be directed towards projects that use waste biomass for energy generation.

Sustainalytics also recognizes that biomass in Poland has been used extensively as a co-generator in coal power plants. The use of biomass as a co-generator of energy in coal power plants has been criticized as prolonging the country's reliance on coal, and contributing to GHG emissions from coal power plants. The State Treasury of Poland has assured Sustainalytics that no proceeds from any green bonds issued under this framework will be directed towards using biomass for cogeneration in coal power plants.

⁹ https://unfccc.int/files/ghg_emissions_data/application/pdf/pol_ghg_profile.pdf

¹⁰ <https://www.iea.org/countries/membercountries/poland/> ;
http://www.iea.org/publications/freepublications/publication/Poland2011_web.pdf

¹¹ <http://www.eurasia.undp.org/content/dam/rbec/docs/Poland.pdf>.

¹² <https://www.ure.gov.pl/download/1/7982/daneOZEmocwww.pdf>.

Afforestation Eligible Sector

The importance of afforestation in achieving European GHG emission reduction targets

The INDC submitted by the EU specifies that the one of the ways the collective emissions reduction target will be reached is by reducing emissions from the Land Use, Land Use Change and Forestry (LULUCF) sectors.¹³ Afforestation and maintaining forests can play a significant role in reducing GHG emissions as forests can act as carbon sinks to absorb carbon dioxide (CO₂) from the atmosphere. In general, the amount of CO₂ absorbed every year by forests (including soil and taking into account utilisation) is estimated at 39.5 million tonnes (roughly equivalent to 10.8 million tonnes of carbon).¹⁴

Specifically, in Poland, the LULUCF sector plays an important role in reducing CO₂ emissions. For example, in 2012, the LULUCF sector was responsible for decreasing Poland's CO₂ emissions by roughly 10%, removing 34, 672 Gg of CO₂ equivalent from the atmosphere through absorption.¹⁵

Poland's National Programme for the Augmentation of Forest Cover¹⁶ aims to increase forest cover to 30% by 2020 and to 33% by 2050.¹⁷ Given the role of forests in removing CO₂ from the atmosphere through absorption, Poland's afforestation targets will play a significant role in meeting its GHG emissions reduction target. In this context, Sustainalytics is of the opinion that afforestation clearly has an important role in reducing GHG emissions in Poland, and projects under this eligibility criterion will help to achieve Poland's afforestation and Poland (and European) emission reduction targets.

Clean Transportation Eligible Sector

Financing passenger and/or mass transit rail projects has the clear environmental impact of reducing GHG emissions by reducing the number of cars in use. Using bond proceeds to finance rail infrastructure that will be used for passenger and/or mass transit will encourage the reduction in use of cars. Sustainalytics recognizes that some rail infrastructure funded through bond proceeds may also be used for freight transportation, as The State Treasury of Poland is unable to specify whether only passenger or freight trains (or both) will operate on funded rail infrastructure.

However, The State Treasury of Poland has confirmed to Sustainalytics that all rail lines and associated rail infrastructure exclusively for use by freight transport trains will not be funded through any green bonds issued under this framework. Additionally, The State Treasury of Poland has also confirmed that no rail lines or rail infrastructure funded under this eligible sector will be dedicated for the exclusive transportation of fossil fuels. While the exact contents of freight transportation on the rail networks will not always be known to the State Treasury of Poland, the use of railway lines for passenger transport ensures that the positive impact of reduction in GHG emissions through a reduction in cars in use is captured by funding eligible projects under this sector, and that the environmental risk associated with the exclusive transportation of fossil fuels is mitigated.

¹³ <http://www4.unfccc.int/Submissions/INDC/Published%20Documents/Latvia/1/LV-03-06-EU%20INDC.pdf>.

¹⁴ <http://www.lasy.gov.pl/informacje/publikacje/in-english/forests-in-poland/forests-in-poland-2015>.

¹⁵ https://unfccc.int/files/ghg_emissions_data/application/pdf/pol_ghg_profile.pdf.

¹⁶ The National Programme for the Augmentation of Forest Cover was prepared by the Forest Research Institute and recommended for implementation by the Council of Ministers in 1995. This programme was also modified in 2002.

¹⁷ <http://www.lasy.gov.pl/informacje/publikacje/in-english/forests-in-poland/forests-in-poland-2015>.

Additionally, The State Treasury of Poland has also confirmed that all rail lines funded under this eligibility sector will be existing rather than new build projects, eliminating the environmental and social risks associated with construction of new infrastructure.

The State Treasury of Poland has also confirmed that their existing rail transportation system includes approximately 60% electrified railway lines and 40% diesel train based railway lines. For the first green bond issued under this framework, proceeds will be used for electrification of diesel train based railway lines, and modernization of railway lines to increase access to roads and capacity of lines. Proceeds from green bonds issued under this framework will also be used to finance electric rolling stock. This electrification of rail infrastructure and financing of electric rolling stock will have the clear environmental impact of reducing GHG emissions through reducing use of fossil fuels. The State Treasury of Poland has assured Sustainalytics that no proceeds from any green bonds issued under this framework will be directed towards transportation activities that consume fossil fuels.

Overall, Sustainalytics is of the opinion that proceeds under this eligibility criterion will have clear environmental impact by increasing the use of passenger/mass transit and thereby reducing GHG emissions from cars, and by reducing GHG emissions through reducing the use of fossil fuels.

Sustainable Agriculture Eligible Sector

The need for government funding for organic farming in Poland

As per the United Nations Food and Agriculture Organisation (FAO), organic farming has the environmental impacts of improving soil quality and improving the quality of ground water.¹⁸ Using synthetic pesticides and fertilizers, as is common in agriculture, often results in the run off of these chemicals into ground water, and consequently the pollution of groundwater. In organic farming, chemical-based fertilizers and pesticides are replaced with biological fertilizers such as compost and animal manure. This significantly reduces the risk of ground water pollution; in fact, organic farming can be prescribed as restorative measure to reduce groundwater pollution.¹⁹ Additionally, sustainable agricultural and soil building practices such as minimum tillage, inter-cropping, and crop rotations are commonly used in organic farming. Such practices improve the build-up of soil flora and fauna, and soil structure. Overall, the use of such practices creates more stable biological systems in soil and improves soil quality.²⁰

The State Treasury of Poland has confirmed that there are 26,000 organic farms in Poland. The State Treasury has also confirmed that 90% of these farms receive government subsidies. Given the environmental impact of organic farming as outlined by the UN FAO, and the context of organic farms being heavily dependent on government funding, Sustainalytics is of the opinion that proceeds allocated to this eligibility criterion will create environmental impact where there is absence of alternative funding.

¹⁸ <http://www.fao.org/organicag/oa-faq/oa-faq6/en/>.

¹⁹ <http://www.fao.org/organicag/oa-faq/oa-faq6/en/>.

²⁰ <http://www.fao.org/organicag/oa-faq/oa-faq6/en/>.

National Parks Eligible Sector

The importance of National Parks for Poland's international/national obligations on biodiversity

Poland is a signatory to the Convention on Biological Diversity (CBD)²¹, and as a member state of the EU is also obligated to meet EU targets on biodiversity set in the EU biodiversity plan.²² In line with these commitments, Poland maintains a national biodiversity strategy and action plan, and regularly discloses progress reports on meeting its CBD and EU biodiversity protection targets.²³

In the Polish Act of Nature Conservation, National Parks are defined as “covering an area of outstanding value for the environmental, scientific, social, cultural and educational [benefit], with an area of not less than 1000 hectares, which is subject to the protection of all nature and landscape values.” In its progress report on the implementation of the CBD, National Parks in Poland are confirmed as being protected areas.²⁴ Using green bond proceeds to manage National Parks has a clear environmental impact of protecting biodiversity, and also contributes to meeting Poland's national and international commitments in this area.

Additionally, Sustainalytics recognizes that education and environmental awareness activities are specifically mandated by Poland's Environmental Protection Act (EPA). The State Treasury of Poland has assured Sustainalytics that green bond proceeds allocated to this eligibility criterion will be directed towards including topics of environmental awareness and protection in school curriculums. In this context, Sustainalytics is of the opinion that such educational activities will have an impact on protecting biodiversity through creating increased awareness.

Overall, Sustainalytics is of the opinion funding the management of national parks through bond proceeds will result in the protection of biodiversity, and contribute to Poland meeting its national and international obligations in this area.

Advancing the Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs) were set in September 2015 through a multi-stakeholder partnership, and form an agenda for achieving sustainable development by the year 2030. These goals are widely considered to be the next step to the Millennium Development Goals (MDG), which were time-bound to 2015. Unlike the MDG's, the SDGs emphasize the elimination of inequality and disparity in opportunity globally, in both developed and developing countries. Poland's Green Bond Framework aligns with SDGs 7, 13, and 15, as described below.

Alignment with SDG 7: Affordable and Clean Energy

In particular, SDG 7 'Affordable and Clean Energy' has targets associated with increasing substantially the share of renewable energy in the global energy mix, and ensuring universal access to affordable, reliable, and modern energy services. By using green bond proceeds to finance projects under the Renewable

²¹ <https://www.cbd.int/countries/?country=pl>.

²² <http://ec.europa.eu/environment/nature/biodiversity/comm2006/pdf/profiles/pl.pdf>.

²³ <https://www.cbd.int/doc/world/pl/pl-nr-05-en.pdf> ;

<http://ec.europa.eu/environment/nature/biodiversity/comm2006/pdf/profiles/pl.pdf>.

²⁴ <https://www.cbd.int/doc/world/pl/pl-nr-05-en.pdf>.

Energy eligibility criterion, The State Treasury of the Republic of Poland is advancing the abovementioned targets of SDG 7.

Alignment with SDG 13: Climate Action

SDG 13 includes a target that specifies integrating climate change measures into national policies, strategies, and planning. By using green bond proceeds to fund renewable energy and afforestation projects that contribute to Poland's NREAP and EU emission reduction targets, The State Treasury of the Republic of Poland is advancing the abovementioned target of SDG 13.

Alignment with SDG 15: Life on Land

SDG 15 has targets that specify substantially increasing afforestation and reforestation, and that specify the reduction in degradation of natural habitats and halt in loss of biodiversity. By using green bond proceeds to fund projects under the Afforestation and National Parks eligibility criteria, The State Treasury of Poland is advancing the abovementioned targets of SDG 15.

Section 3: Alignment of the Poland Green Bond Framework with the Green Bond Principles 2016

Sustainalytics is of the opinion that the Poland Green Bond Framework is robust, credible, and transparent. The commitment of The State Treasury of Poland to disclose the relevant eligible sector (and specific projects if possible) for each green bond issued at the time of (or prior to) issuance,²⁵ in addition to its annual reporting commitment, will allow for transparent disclosure of intended impact of each green bond issued under the Poland Green Bond Framework.

Additionally, the crediting of proceeds to a separate account allows for clear segregation and tracking of green bond proceeds. The State Treasury of Poland has also explicitly addressed the risk of double counting by committing to reconcile allocation to eligible sectors with its annual budget review. The State Treasury of Republic of Poland has assured Sustainalytics that the budget will not allow for listing of the same project twice, so reconciliation to budget will prevent double counting and funding of same project twice. This approach ensures the creation of additionality with each green bond issued under this framework.

The State Treasury of Poland's commitment to reporting annually (or until full allocation of proceeds) on allocation of proceeds, examples of eligible Green Projects, and balance of unallocated proceeds is in line with industry norms. The State Treasury of Poland has also committed to disclosing environmental and social impact of funded projects, when feasible, and to issue an attestation that confirms that proceeds of all green bonds issued under this framework are used in conformance with the framework. Given the public nature of the issuer, Sustainalytics is of the opinion that reporting for this framework is transparent.

²⁵ Such disclosure will be made only if project review and evaluation has been completed and the allocation of proceeds has been determined in advance of issuance (refer to Poland Green Bond Framework document).

Sustainalytics has determined that the Poland Green Bond Framework aligns to the four pillars of the Green Bond Principles 2016. For detailed information please refer to Appendix 1: Green Bond/Green Bond Programme External Review Form.

Conclusion

Sustainalytics is of the opinion that The State Treasury of the Republic of Poland represented by the Minister of Development and Finance Green Bond Framework (Poland Green Bond Framework) will contribute to achieving Polish and European GHG emission reduction targets, and will also contribute to advancing the UN Sustainable Development Goals. Sustainalytics has determined that the Poland Green Bond Framework is aligned with the four pillars of the Green Bond Principles 2016, and is transparent, robust, and credible.

APPENDICES

Appendix 1: Green Bond/Green Bond Programme External Review Form

Green Bond / Green Bond Programme External Review Form

Section 1. Basic Information

Issuer name: State Treasury of the Republic of Poland

Green Bond ISIN or Issuer Green Bond Framework Name, if applicable: *[specify as appropriate]*

Review provider's name: Sustainalytics

Completion date of this form: December 5th, 2016

Publication date of review publication:

Section 2. Review overview

SCOPE OF REVIEW

The review assessed the following elements and confirmed their alignment with the GBPs:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting |

ROLE(S) OF REVIEW PROVIDER

- | | |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification | <input type="checkbox"/> Rating |
| <input type="checkbox"/> Other <i>(please specify):</i> | |

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW *(if applicable)*

Please refer to Green Bond Framework, provided in a separate document, and Second Opinion section above.

Section 3. Detailed review

1. USE OF PROCEEDS

Overall comment on section (if applicable):
Overall, Sustainalytics is of the opinion that the proceeds from the bond will have clear positive environmental impacts and contribute to achieving Poland’s environmental targets to (i) reduce GHG emissions as a member country of the EU, and (ii) increase its share of energy derived from renewable sources. Additionally, proceeds will also contribute to conservation of biodiversity, and meeting Poland’s national and international obligations in this area. Sustainalytics is also of the opinion that funding projects in the Renewable Energy, Clean Transportation, Afforestation, and National Parks sectors in Poland advances the Sustainable Development Goals (SDGs).

Use of proceeds categories as per GBP:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Renewable energy | <input type="checkbox"/> Energy efficiency |
| <input type="checkbox"/> Pollution prevention and control | <input checked="" type="checkbox"/> Sustainable management of living natural resources |
| <input checked="" type="checkbox"/> Terrestrial and aquatic biodiversity conservation | <input checked="" type="checkbox"/> Clean transportation |
| <input type="checkbox"/> Sustainable water management | <input type="checkbox"/> Climate change adaptation |
| <input type="checkbox"/> Eco-efficient products, production technologies and processes | <input type="checkbox"/> Other (please specify): |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBPs | |

If applicable please specify the environmental taxonomy, if other than GBPs: *Not applicable*

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):
The Ministry of Finance, Public Debt Department will review and approve budget allocation or subsidies to projects eligible for funding through proceeds of each green bond issued. The Ministry of Finance, Public Debt Department will select projects for funding through use of proceeds based on alignment with the eligibility criteria/eligible sectors, as defined in the framework. The Ministry of Finance, Public Debt Department will also evaluate projects on the following additional considerations: investment horizon, availability of information to facilitate reporting, other Environmental, Social, or Governance (ESG) factors related to the agencies/organisations involved.

The State Treasury of the Republic of Poland has also explicitly addressed the risk of double counting by committing to reconcile allocation to eligible sectors with its annual budget review. The State Treasury of Republic of Poland has assured Sustainalytics that budget will not allow for listing of same project twice, so reconciliation to budget will prevent double counting and funding of same project twice.

Sustainalytics is of the opinion that the process to select projects for funding through bond proceeds is robust.

Evaluation and selection

- | | |
|--|---|
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Green Bond proceeds | <input checked="" type="checkbox"/> Documented process to determine that projects fit within defined categories |
| <input checked="" type="checkbox"/> Summary criteria for project evaluation and selection publicly available | <input type="checkbox"/> Other (<i>please specify</i>): |

Information on Responsibilities and Accountability

- | | |
|--|---|
| <input checked="" type="checkbox"/> Evaluation / Selection criteria subject to external advice or verification | <input checked="" type="checkbox"/> In-house assessment |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

3. MANAGEMENT OF PROCEEDS

Overall comment on section (*if applicable*):

Proceeds from all green bonds issued under this framework are deposited in a separate Green Cash Account. Disbursements will be made over a period of time, depending on a project's amortization schedule. As Green Bond proceeds are disbursed, corresponding amounts are adjusted from the Green Cash Account accordingly on a regular basis. Unallocated proceeds will be temporarily held as investments in cash, short term deposits, and other short term liquidity instruments. This is in accordance with The State Treasury of the Republic of Poland, represented by the Minister of Development and Finance's normal liquidity management policy. Sustainalytics is of the opinion that management of proceeds is in line with industry norms.

Tracking of proceeds:

- | |
|---|
| <input checked="" type="checkbox"/> Green Bond proceeds segregated or tracked by the issuer in a systematic manner |
| <input checked="" type="checkbox"/> Disclosure of intended types of temporary investment instruments for unallocated proceeds |
| <input type="checkbox"/> Other (<i>please specify</i>): |

Additional disclosure:

- | | |
|---|---|
| <input type="checkbox"/> Allocations to future investments only | <input checked="" type="checkbox"/> Allocations to both existing and future investments |
| <input type="checkbox"/> Allocation to individual disbursements | <input checked="" type="checkbox"/> Allocation to a portfolio of disbursements |
| <input checked="" type="checkbox"/> Disclosure of portfolio balance of unallocated proceeds | <input type="checkbox"/> Other <i>(please specify)</i> : |

4. REPORTING

Overall comment on section *(if applicable)*:

For each green bond issued under this framework, The Ministry of Finance, Public Debt Department will report annually, or until proceeds are fully allocated, on:

- (i) aggregate amount allocated to the various Eligible Sectors
- (ii) remaining balance of funds which have not yet been utilized
- (iii) examples of Green Projects from each Eligible Sector(s) (subject to confidentiality disclosures)

When feasible, the Ministry of Finance, Public Debt Department will also report on environmental and social impacts resulting from funded projects. The Ministry of Finance, Public Debt Department will also issue an attestation that confirms that proceeds of all green bonds issued under this framework are used in conformance with the framework.

Given the public nature of the issuer, verification of allocation of proceeds is unfeasible. Sustainalytics of the opinion that the budget reconciliation approach described under “Process Evaluation and Selection, “and the disclosure of attestations that confirm allocation of proceeds to eligible projects is sufficient, and that overall reporting for this framework is transparent.

Use of proceeds reporting:

- | | |
|--|--|
| <input type="checkbox"/> Project-by-project | <input checked="" type="checkbox"/> On a project portfolio basis |
| <input type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other <i>(please specify)</i> : |

Information reported:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Allocated amounts | <input type="checkbox"/> GB financed share of total investment |
| <input type="checkbox"/> Other <i>(please specify)</i> : | |

Frequency:

- | | |
|--|--------------------------------------|
| <input checked="" type="checkbox"/> Annual | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other <i>(please specify)</i> : | |

Impact reporting:

- | | |
|---|--|
| <input type="checkbox"/> Project-by-project | <input checked="" type="checkbox"/> On a project portfolio basis |
|---|--|

- Linkage to individual bond(s) Other (*please specify*):

Frequency:

- Annual Semi-annual
- Other (*please specify*): When feasible, impact reporting will be made available in annual reporting on website

Information reported (expected or ex-post):

- GHG Emissions / Savings Energy Savings
- Other ESG indicators (*please specify*): Total amount (MW/GW) of renewable energy produced, area of forest land planted/preserved. See framework for full list of impact indicators by eligible sector.

Means of Disclosure

- Information published in financial report Information published in sustainability report
- Information published in ad hoc documents Other (*please specify*): Website
- Reporting reviewed (*if yes, please specify which parts of the reporting are subject to external review*):

Where appropriate, please specify name and date of publication in the useful links section.

USEFUL LINKS (*e.g. to review provider methodology or credentials, to issuer's documentation, etc.*)

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

Type(s) of Review provided: N/A

- Consultancy (incl. 2nd opinion) Certification
- Verification / Audit Rating
- Other (*please specify*):

Review provider(s):

Date of publication:

ABOUT ROLE(S) OF REVIEW PROVIDERS AS DEFINED BY THE GBP

- (i) **Consultant Review:** An issuer can seek advice from consultants and/or institutions with recognized expertise in environmental sustainability or other aspects of the issuance of a Green Bond, such as the establishment/review of an issuer's Green Bond framework. "Second opinions" may fall into this category.
- (ii) **Verification:** An issuer can have its Green Bond, associated Green Bond framework, or underlying assets independently verified by qualified parties, such as auditors. In contrast to certification, verification may focus on alignment with internal standards or claims made by the issuer. Evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria.
- (iii) **Certification:** An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against an external green assessment standard. An assessment standard defines criteria, and alignment with such criteria is tested by qualified third parties / certifiers.
- (iv) **Rating:** An issuer can have its Green Bond or associated Green Bond framework rated by qualified third parties, such as specialised research providers or rating agencies. Green Bond ratings are separate from an issuer's ESG rating as they typically apply to individual securities or Green Bond frameworks / programmes.

DISCLAIMER

All rights reserved. No part of this second party opinion (the “Opinion”) may be reproduced, transmitted or published in any form or by any means without the prior written permission of Sustainalytics.

The Opinion was drawn up with the aim to explain why the analyzed bond is considered sustainable and responsible. Consequently, this Opinion is for information purposes only and Sustainalytics will not accept any form of liability for the substance of the opinion and/or any liability for damage arising from the use of this Opinion and/or the information provided in it.

As the Opinion is based on information made available by the client, Sustainalytics does not warrant that the information presented in this Opinion is complete, accurate or up to date.

Nothing contained in this Opinion shall be construed as to make a representation or warranty, express or implied, regarding the advisability to invest in or include companies in investable universes and/or portfolios. Furthermore, this Opinion shall in no event be interpreted and construed as an assessment of the economic performance and credit worthiness of the bond, nor to have focused on the effective allocation of the funds’ use of proceeds.

The client is fully responsible for certifying and ensuring its commitments` compliance, implementation and monitoring.

SUSTAINALYTICS

Sustainalytics is the largest independent provider of sustainability research, analysis, and services to investors. We serve over 250 institutional investors which include some of the world's largest asset owners and asset managers. Through over 20 years of experience serving the responsible investment (RI) market, we have gained a reputation for providing high-quality ESG research solutions and excellent client service.

Sustainalytics is headed by seasoned professionals in the field of business, finance, and sustainability, with a wealth of experience in the Responsible Investment area. After more than 20 years of local experience and expertise in the Responsible Investment (RI) market Sustainalytics has developed a comprehensive understanding of trends and best practices and a solid process to assist organisations in integrating ESG considerations into their policies and strategies. We have worked with some of the world's financial institutions including pension plans, investment managers and banks providing customised support to help them achieve their RI objectives. Clients include ABN AMRO, APG, BBVA, BNP Paribas, Deutsche Bank, ING Bank, Lombard Odier, Lloyds Bank, Triodos Bank, UBS and over 250 other financial institutions and organisations.

Sustainalytics now has a staff of 250 employees globally, including over 120 analysts, with operations in Amsterdam, Boston, Bucharest, Frankfurt, New York, Paris, London, Singapore, Sydney, Timisoara, and Toronto, and representation in Brussels and Washington DC.



In 2015, Sustainalytics was named the Best SRI or Green Bond Research Firm by GlobalCapital. In December 2014, for the third year in a row, Sustainalytics was named best sustainable and responsible investment research firm in the Independent Research in Responsible Investment (IRRI) Survey, conducted by Thomson Reuters and SRI-CONNECT.

SUSTAINALYTICS At a Glance

Our Coverage

- Company ESG Research
4,500 Issuers
- Corporate Governance Research
4,000 Issuers
- Global Compact Research
20,000+ Issuers
- Product Involvement
40,000 Issuers
- Controversial Weapons Radar
40,000 Issuers
- Sector Research
42 Peer Groups

Our Team

Michael Jantzi, CEO

More than 250 staff members, including over 120 analysts with multidisciplinary and industry expertise

Shareholders: ABN AMRO MeesPierson, Michael Jantzi and senior staff, Mooncrest Holdings Limited, PGGM, Renewal Partners, Silver Box Holdings Limited and Triodos

Board Members:

- Else Bos, CEO, PGGM
- Alan Broadbent, CEO, Avana Capital Corporation
- Melissa Brown, Partner, Daobridge Capital
- Mike Musuraca, Managing Director, Blue Wolf Capital Partners LLC
- Glen Saunders, Former board member and current senior adviser, Principles for Responsible Investment (PRI)
- Georg Schürmann, Managing Director of Triodos Bank Germany

Our Offices

Offices in Amsterdam (Headquarters), Boston, Bucharest, Frankfurt, London, New York City, Paris, Singapore, Sydney, Timisoara, and Toronto. Representative offices in Brussels and Washington D.C.

Our Clients

Our 300+ clients worldwide include financial institutions, asset managers, mutual funds, pension funds, banks, insurance companies, international organizations and academic networks

.....