

GREEN BOND REPORT ON THE USE OF PROCEEDS

Poland's 10-year EUR green bond maturing on March 7, 2029

Poland's 30-year EUR green bond maturing on March 8, 2049



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Introduction

This Green Bond Report is our third report covering the Republic of Poland's green bond issuances (the first two were published in December 2017 and February 2018). It presents both the allocation of proceeds to green projects from bonds issued in 2019, as well as the impact we create through these bonds.

In March 2019 the Republic of Poland again tap the green market and issued the following two tranches of bonds

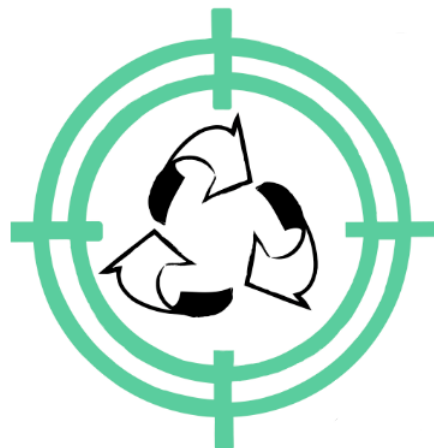
- 10-year bond, with a nominal value of EUR 1.5bn (ISIN XS1958534528),
- 30-year bond, with a nominal value of EUR 0.5bn (ISIN XS1960361720).

Allocation of proceeds to various Eligible Sectors was done in proportion to the face value of each green bond (75% of green expenditures from each Eligible Sector was allocated to 10-year bond and 25% was assigned to 30-year bond).

As it was indicated in our previous Green Bond reports all proceeds from green bond issuances in 2016 and 2018 were spent on green projects.

As the values of these projects were denominated in Polish zloty, all figures were converted into euro using the EUR/PLN exchange rate announced on the green bond issuance date.

The bonds are listed on the Luxembourg Stock Exchange on the dedicated green platform - Luxembourg Green Exchange.



Allocation to eligible projects

Proceeds from the green bonds were used to refinance existing projects or to finance the new ones.

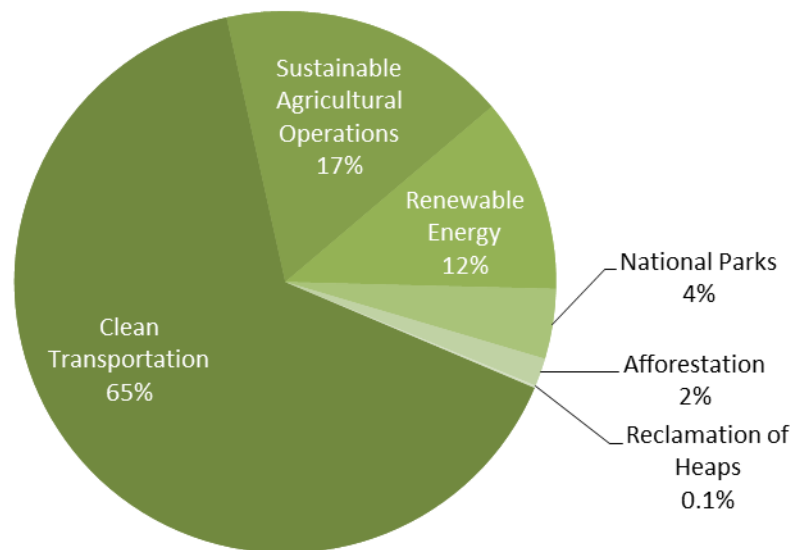
As of March 1, 2020 about 39% of the total green bonds proceeds (from 10-year and 30-year bonds) has been allocated to Eligible Sectors described in the Green Bond Framework. The remaining balance of funds which have not yet been utilized amounts to EUR 1,219.8m (EUR 917.3m from 10-year bonds and EUR 302.6m from 30-year bonds) and will be used for financing green projects in coming years.

About 34% of the proceeds was spent on refinancing projects initiated in 2018. The remaining 66% was allocated to projects launched in 2019. The proceeds from the bonds were spent on all sectors identified in the Green Bond Framework.

Most of the funds were allocated to Clean Transportation (65%), followed by Sustainable Agricultural Operations (17%) and Renewable Energy (12%).

The detailed distribution presents the chart below.

Chart 1. Sectorial distribution of the proceeds



Source: Ministry of Finance’s own calculation

The information on allocation to Eligible Sectors broken down by each green bond issued in 2019 presents the tables below.

Table 1. Allocation report in EUR

ISIN	Total green bond proceeds	Total proceeds allocated so far	Net balance
XS1958534528	1,491,930,000.00	574,671,938.40	917,258,061.60
XS1960361720	492,125,000.00	189,560,118.56	302,564,881.44
Total	1,984,055,000.00	764,232,056.96	1,219,822,943.04

Source: Ministry of Finance's own calculation

Table 2. Allocation report by sectors in EUR

Eligible Sector	ISIN		Total
	XS1958534528	XS1960361720	
Clean Transportation	374,298,856.63	123,465,460.72	497,764,317.35
Sustainable Agricultural Operations	99,271,507.91	32,745,498.00	132,017,005.91
Renewable Energy	66,715,047.96	22,006,490.23	88,721,538.19
National Parks	23,954,390.50	7,901,546.61	31,855,937.11
Afforestation	9,625,387.27	3,175,010.70	12,800,397.97
Reclamation of Heaps	806,748.13	266,112.30	1,072,860.43
Total	574,671,938.40	189,560,118.56	764,232,056.96



Available key impact metrics as well as key performance indicators for particular Eligible Projects are included in the Table 3. Use of proceeds report.

The basis for assessment of CO₂ emissions avoided as a result of expenditures on Renewable Energy Sector is the assumption that the production of energy from renewable sources does not create any additional emissions of CO₂.

The calculation is based on a hypothetical amount of CO₂ emissions that would have been produced if a given amount of energy generated from renewable sources had been produced using the energy mix set for a given year.

Emission factors are determined based on the data from entities using the environment activities of which cause emissions. The database is maintained by the National Centre for Emissions Management and The Institute of Environmental Protection-National Research Institute.

The emission factor for 2018 amounted to 792 kg CO₂/MWh. Due to the lack of indicator for 2019, data from 2018 were used for calculations of CO₂ emissions avoided in 2019.

Key performance indicators for:

- Clean Transportation Sector (km of railway lines, civil engineering facilities, railroad platforms),
- Sustainable Agriculture Operations Sector (no. of farms, ha, no. of animals),
- Afforestation Sector (no. of farms, ha)

do not show impact resulting from specific expenditures from the green bond but demonstrate the environmental impact of the total expenditures at a programme level (resulted from green financing and other sources of financing).

In the case of Clean Transportation Sector the share of the state budget green expenditures in the total National Railway Programme expenditures amounted to 20% in 2018.

In the case of projects carried out under EU Rural Development Programmes (Afforestation, Agri-environment-climate programme and Organic farming programme) the share of the state budget green expenditures in the total programme expenditures was 36%.

Use of proceeds in detail

Table 3. Use of proceeds report

Portfolio name	Portfolio description	Eligible Sector	Amount of green bond proceeds		Project years*	Share of new financing	Type of asset	Impact metric/key performance indicator (if available)
			XS1958534528 allocated	XS1960361720				
Electricity generated from renewable energy sources**	Financing the excise tax exemptions according to Article 30.1 and para 2 of the Act on Excise Duty	Renewable Energy	66,715,048	22,006,490	Q3 2018 - Q3 2019	35%	excise tax exemptions	Detailed information in Appendix 2
Implementation of the Environmental Protection Act	Subsidies for National Parks on i.a. conservation, restorative and educational activities	National Parks	23,954,391	7,901,547	Q4 2018 - Q4 2019	67%	subsidies	23 national parks on around 315 thousand ha at the end of 2018 (data for 2019 is not available)
Land restoration	Reclamation of land in coal mining areas e.g. - maintenance of Piaseczno mine workings, - cleaning and waste disposal located in "degraded forrest area field F-1" in Bytom-Miechowice - cleaning of drainage trench and drainage system for Carboniferous waters from the drift in Czarny Bór - maintenance of drainage trenches surrounding landscape structure and sand separators located at their line-ends in Pszów	Reclamation of Heaps	806,748	266,112	Q4 2018 - Q4 2019	80%	expenditures	Approximately six projects undertaken, including e.g.: maintenance and cleaning of drainage trenches approximately 1 km long and the riverbed of the Branicki watercourse of ca. 2 km; maintenance of the "Piaseczno" excavation sites covering an area of ca. 44 ha.
National Railway Programme to 2023	Modernisation of railway grid including electrification of railway lines e.g.: - works on railway line no E 75 (section Sadowne - Czyżew), - modernisation of railway line no E 59 (section Czempin - Poznań), - works on railway line no 8 (section Warka - Radom) - works on railway lines no: 140, 148, 157, 159, 173, 689, and 691 on the section Chybie - Żory - Rybnik - Nędza / Turze	Clean Transportation	374,298,857	123,465,461	Q3 2018 - Q4 2019	64%	cofinancing	1.172 km of railway lines, 768 of civil engineering facilities, 194 of railroad platforms in 2018 (data for 2019 is not available)
Subsidies for State Forests	Subsidies spent on afforestation, management of nature reserves, protection of forests, wildlife, plants	Afforestation	380,561	125,531	Q1 2018 - Q4 2019	49%	subsidies	

Table 3. Use of proceeds report (cont'd)

Portfolio name	Portfolio description	Eligible Sector	Amount of green bond proceeds allocated		Project years*	Share of new financing	Type of asset	Impact metric/key performance indicator (if available)
			XS1958534528	XS1960361720				
Afforestation under Rural Development Programmes **	Investment in forestry development and improving the lifespan of trees	Afforestation	9,244,826	3,049,480	Q4 2018 - Q4 2019	95%	cofinancing	15,331 farms and 76,032 ha in 2019 ***
Agri-environment-climate programme carried out under Rural Development Programmes ***	Contribution to sustainable development of rural areas, promotion of sustainable use of soil, controlled use of fertilizers, protection of endangered bird species and natural habitats, preservation of endangered genetic plants and animal resources, protection of ecosystem diversity	Sustainable Agricultural Operations	80,114,191	26,426,304	Q4 2018 - Q4 2019	86%	cofinancing	63,703 farms, 1,386,762 ha and 128,741 of animals in 2019 ****
Organic farming programme carried out under Rural Development Programmes ***	Environmentally friendly farming including prohibiting the use of chemically synthesized plant protection products and fertilizers	Sustainable Agricultural Operations	19,157,317	6,319,194	Q4 2018 - Q4 2019	99%	cofinancing	16,579 farms and 576,211 ha in 2019 *****

Source: Ministry of Finance's own calculation based on the data from different governmental institutions

* Period of programme financed with green bonds

** Detailed information on this programme presents Table 5 (Appendix 2)

*** Detailed information on this programme presents Table 4 (Appendix 1)

***** Ha of farms/no. of animals refer to the period from the beginning of RDP 2014-2020 until the end of 2019

Appendix 1: Details of allocation under RDP

Table 4. Details of the Agri-environment-climate programme dispersions

	Q1-Q4 2019		
	Amount in EUR m	Number of farms	Ha/number of animals**
I. Agri-environment-climate programme*	91.77	63,703	1,515,503
1. Agri-environment-climate programme under RDP 2014-2020	89.27	60,747	960,148
Sustainable farming	15.29	7,235	337,108
Protection of soil and water	9.95	11,182	122,246
Protection of endangered bird species and natural habitats in Natura 2000 areas	30.06	24,067	274,311
Protection of endangered natural habitats outside of Natura 2000 areas	27.09	21,744	218,021
Preservation of endangered genetic plant resources in agriculture	0.95	3,090	11,267
Preservation of endangered genetic animal resources in agriculture	5.83	2,829	81,069
Others	0.11	731	524

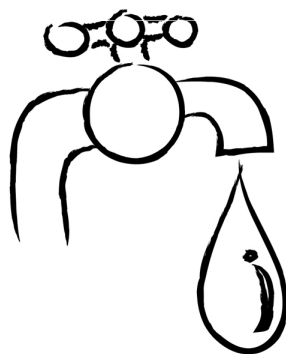


Table 4. Details of the Organic farming programme and Afforestation dispersions (cont'd)

	Q1-Q4 2019		
	Amount (millions EUR)	Number of farms	Ha/no of animals**
II. Organic farming*	25.27	16,579	576,211
1. Organic farming programme under RDP 2014-2020	23.22	13,936	351,052
Agricultural crops during the conversion period and after the conversion period	10.65	13,936	351,052
Vegetable cultivation in the conversion period and after the conversion period	2.18		
Herbal crops in the conversion period and after the conversion period	3.09		
Orchard cultivation during the conversion period and after the conversion period	1.93		
Fodder cultivation on arable land during the conversion period and after the conversion period	4.22		
Permanent grasslands in the conversion period and after the conversion period	1.15		
2. Organic farming programme under RDP 2007-2013	2.06	2,712	344,287
Agricultural crops during the conversion period and after the conversion period	1.80	2,712	344,287
Vegetable cultivation in the conversion period and after the conversion period	0.09		
Herbal crops in the conversion period and after the conversion period	0.01		
Orchard cultivation during the conversion period and after the conversion period	0.14		
Permanent grasslands in the conversion period and after the conversion period	0.02		
III. Afforestation under RDP	11.72		

Source: Ministry of Finance's own calculation

* Total no. of farms and ha/no. of animals are not the sum of partial amounts because beneficiaries, who received funding in several areas mentioned above, are included in total numbers only once.

** Ha of farms/no. of animals refer to the period from the beginning of RDP 2014-2020 until the end of 2019.

Appendix 2: Details of renewable energy

Table 5. Excise duty refund

Period	Amount of excise duty refund in EUR m	Electricity with return in MWh*	Estimated amount of CO ₂ avoided in kt
Q3 2018	131.7	6,586,349	5,216
Q4 2018	102.1	5,104,713	4,043
Q1 2019	113.4	22,674,149	17,958
Q2 2019	20.0	4,003,882	3,171
Q3 2019	14.5	2,890,187	2,289
Total	381.7	41,259,280	32,677

* Estimated value of energy from renewable sources, for which excise duty was obtained in a calendar year; MoF's estimates, excise tax on electricity take-off in 2018 amounted to 20.00 PLN/MWh and in 2019 was reduced to 5.00 PLN/MWh.

Source: Ministry of Finance

Table 6. Estimated amount of electricity produced in RES installations in Poland

Production of electricity from renewable energy sources in GWh*						
	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019
Water	413	428	774	756	390	534
Wind	2,153	3,695	4,652	2,691	2,521	4,040
Other RES	45	94	106	96	104	137
Total	2,611	4,217	5,532	3,543	3,015	4,711

* Presented data are calculated on the basis of measurements collected by the TSO during the current traffic of the National Electricity System. Therefore the data sometimes can differ from the final data provided by energy companies for statistical purposes.

<https://www.pse.pl/dane-systemowe/funkcjonowanie-kse/raporty-miesieczne-z-funkcjonowania-rb/raporty-miesieczne>

Source: Polish Power System

Table 7. Power capacity in RES installations in Poland

Power capacity in MW, end of period*		
	2018	2019
Water	982	973
Wind	5,864	5,917
Biofuel	1,363	1,492
Biogas	238	245
Solar energy	147	477
Total	8,593	9,106

* <https://www.ure.gov.pl>

Source: Energy Regulatory Office

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