

# Pre-Issuance Verification Report

## Limited Assurance Procedure based on Climate Bonds Standard version 3.0

By V.E for the Polski Koncern Naftowy (PKN) Orlen's 2021 Green Bond Issuance

### Scope

PKN is considering the issuance of its first 2021 Green Bond (hereafter the "Bond"). For this purpose, its intention is to use the proceeds to finance or refinance projects related to the construction and operation of Clean Transport infrastructure, Waste Management plants and renewable energies (the "Eligible Green Projects"). According to the Issuer, the potential issuances could be by an amount lower to the total investment exposure to the proposed Selected Projects.

In this context, V.E (the "Verifier") has been commissioned, as an independent third-party provider approved by the Climate Bonds Standard Board, by PKN (the "Issuer") to perform the Pre-Issuance Verification of the Bond. This verification has been conducted in accordance with the Climate Bonds Standard (CBI Standard) version 3.0 requirements [i.e. Part A: General requirements to be applied for all Climate Bonds, and Part C: Climate Bonds Eligibility of Projects & Assets : Low Carbon Transport Criteria Version 2.0, Solar Criteria Version 2.1, Wind Criteria Version 1.2, Marine Renewable Energy Criteria Version 2.0 and Waste Management Criteria Version 1.0.]

The work undertaken by V.E to form this verification report included:

- ▶ Planning and management of the verification.
- ▶ Desk review of the Bond and associated documentation provided by the Issuer.
- ▶ Assessment of evidences provided by the PKN against the CBI standard version 3.0.
- ▶ Internal quality control on the assurance report and conclusions.
- ▶ Provision of V.E's Limited Assurance Report.

We have conducted our pre-issuance verification from February 23 to April 14, 2021. The methodology, criteria, findings and assurances addressed by this Limited Assurance Procedure are in accordance with relevant general principles & professional standards of independent auditing, and in line with the International Standard on Assurance Engagements other than Audits or Reviews of Historical Financial Information (ISAE 3000).

### Responsibilities of the Issuer and of V.E

This statement relies on the information provided by the Issuer to the Verifier: documentation and explanations presented during the assessment, based on the understanding that this information was provided to V.E in good faith. V.E has not performed any audit nor other test to check the accuracy of the information provided by the Issuer.

The Issuer is fully responsible for attesting the compliance with its commitments, for their implementation and their monitoring, and for the information provided.

### Pre-Issuance Verification

Based on the supporting elements and explanations provided by the Issuer, nothing has come to our attention that cause us to believe that, in all material respects, the PKN's 2021 Green Bond is not in conformance with the Climate Bonds Standard's Pre-Issuance Requirements (version 3.0) and with associated relevant sector-specific technical criteria. This level of assurance applies altogether to the Eligible Green Projects, the environmental benefits of the Bond, the evaluation and selection process of the assets, the proposed financial accounting system, and the monitoring & reporting system associated to the Bond, to be implemented over the term of the Bond.

### Project Team



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# VERIFICATION CRITERIA & FINDINGS

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PKN Orlen (“hereafter “PKN” or “the Issuer”) has declared that the Net Proceeds of its 2021 Green Bond will be allocated to 5 CBI classification: Solar Energy, Wind Energy, Marine Renewable Energy, Low Carbon Land Transport and Waste Management described in PKN’s Green Finance Framework.

The evidence, information and explanations supporting the Bond issuance provided by PKN to V.E were both historical (for projects selection process and nominated projects) and hypothetical or projected (for the expected environmental benefits, the proposed financial accounting system, and the monitoring & reporting system associated to the Bonds, to be implemented over the term of the Bond).

The Issuer showed a high responsiveness in providing information to the Verifier. We believe that the procedures we have performed and the evidence we have obtained are sufficient and appropriate to provide a basis for our findings.

## Summary criteria for assertions of compliance with the pre-issuance requirements of Climate Bonds Standard version 3.0

V.E has assessed PKN’s 2021 Green Bond and the nominated projects and assets against criteria and requirements detailed within the Climate Bonds Standard version 3.0:

### - Part A: Pre-Issuance Requirements

1. Use of Proceeds
2. Process for Evaluation and Selection of Projects & Assets
3. Management of Proceeds
4. Reporting Prior to Issuance

### - Part C: Eligibility of Projects & Assets

1. Low Carbon Transport Criteria Version 2.0
2. Climate Bonds Initiative Solar Criteria Version 2.1
3. Climate Bonds Initiative Wind Criteria Version 1.2
4. Climate Bonds Initiative Waste Management Criteria Version 1.0
5. Climate Bonds Initiative Marine Renewable Criteria Version 2.0

## Part A: Assessment of PKN's 2021 Green Bond against Pre-Issuance Requirements of Climate Bonds Standards

### 1. Use of Proceeds

- 1.1. The Issuer shall document the Nominated Projects & Assets which are proposed to be associated with the Bond and which have been assessed as likely to be Eligible Projects & Assets. The Issuer shall establish a list of Nominated Projects & Assets which can be kept up to date during the term of the Bond.

The Issuer has provided a list of projects to be financed, namely:

- Financing of Clean transport infrastructure
- Financing of Onshore solar thermal and Photovoltaic systems
- Financing of Onshore wind energy facilities
- Financing Waste management infrastructure
- Financing of Offshore wind energy facilities

- 1.2. The expected Net Proceeds of the bond shall be no greater than the Issuer's debt obligation to the proposed Nominated Projects & Assets, or the Fair Market Value of the proposed Nominated Projects & Assets which are owned by the Issuer.

The expected Net Proceeds of the Bond will be no greater than the Issuer's total investment exposure to the proposed Selected Projects. According to the Issuer, the issuance amount will be conditional to the total amount certified.

- 1.3. Nominated Projects & Assets shall not be nominated to other Certified Climate Bonds, Certified Climate Loans, Certified Climate Debt Instruments, green bonds, green loans or other labelled instruments (such as social bonds or SDG bonds).

The Issuer confirms that the Selected Project has not been nominated to another Climate Bond. This can be confirmed through the absence of the Project from the Climate Bonds Initiative's database<sup>1</sup>.

V.E reviewed the above elements based on the information and documentation provided by the Issuer during the verification, and nothing has come to our attention that causes us to believe that, in all material respects, the PKN's 2021 Green Bond is not in conformance with the Climate Bonds Standard's Pre-Issuance Requirements (version 3.0) stated in section 1 "Use of Proceeds".

### 2. Process for Evaluation and Selection of Projects & Assets

- 2.1. The Issuer shall establish, document and maintain a decision-making process which it uses to determine the eligibility of the Nominated Projects & Assets. The decision-making process shall include, without limitation:

- 2.1.1. A statement on the climate-related objectives of the Bond

The Selected Projects are intended to contribute to climate change mitigation. This objective is formalised in the Framework.

<sup>1</sup> <https://www.climatebonds.net/bond-library>

2.1.2. How the climate-related objectives of the Bond are positioned within the context of the Issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability

A description of PKN's priorities and how they meet the international environmental challenges is included in the Framework. The Issuer has identified its environmental objective as being aligned with the European Parliament Regulation on Sustainable Investment and the Sustainable Development Goals, as well as the ICMA Climate Transition Finance Handbook. The Framework is also aligned to the ICMA Green Bond Principles and LMA Green Loan Principles.

2.1.3. The Issuer's rationale for issuing the Bond.

PKN has identified its main environmental challenges and priorities to tackle through the eligible projects. A description of PKN's priorities and how they meet the international environmental challenges is in the Framework.

2.1.4. A process to determine whether the Nominated Projects & Assets meet the eligibility requirements specified in Part C of the Climate Bonds Standard.

The governance and process for the evaluation and selection of the Selected Projects are formalised in the Framework and is considered relevant. The Strategy and the Investment Committees are in charge of verifying compliance of the selected Green Projects with the Eligibility Criteria defined in the Framework.

**2.2.** The Issuer should include under Clause 2.1 further aspects of the decision-making process, including:

2.2.1. Related eligibility criteria, including, if applicable, exclusion criteria or another process, applied to identify and manage potentially material environmental, social or governance risks associated with the Nominated Projects & Assets.

The Selection and Exclusion criteria are formalised in the Framework. The Strategy and the Investment Committees conduct annual reviews of compliance of the projects with the Eligibility criteria.

2.2.2. Any green standards or certifications referenced in the selection of Nominated Projects & Assets.

The Issuer applies an Integrated Management System (IMS) to verify the environmental and social compliance of the selected projects. The IMS comprises several environmental and quality certifications including Quality Management System based on the PN-EN ISO 9001 and AQAP 2110 standards, Environmental Management System based on the PN-EN ISO 14001 standard and Occupational Health and Safety Management System based on the PN-N-18001 standard, among others.

2.2.3. The Issuer shall assess that all proposed Nominated Projects & Assets to be associated with the Bond meet the documented objectives as stated under Clause 2.1.1 and are likely to conform to the relevant eligibility requirements under Part C of the Climate Bonds Standard.

The Issuer reports to comply with environmental regulation and to conduct the required Environmental Impact Assessments. The Strategy and Investment Committees will review the compliance of the projects with the Eligibility criteria.

V.E reviewed the above elements based on the information and documentation provided by the Issuer during the verification, and nothing has come to our attention that causes us to believe that, in all material respects, the PKN's 2021 Green Bond is not in conformance with the Climate Bonds Standard's Pre-Issuance Requirements (version 3.0) stated in section 2 "Process for Evaluation and Selection of Projects & Assets".

### 3. Management of Proceeds

3.1. The systems, policies and processes to be used for management of the Net Proceeds shall be documented by the Issuer and disclosed to the Verifier, and shall include arrangements for the following activities:

3.1.1. Tracking of proceeds: The Net Proceeds of the Bond can be credited to a sub-account, moved to a sub-portfolio, or otherwise tracked by the Issuer in an appropriate manner and documented.

The Issuer reports that the Net Proceeds of the Bonds will be managed by PKN ORLEN's Finance Department, which will verify that the allocation of the Bonds' net funds coincides nominally with the disbursements made to the Eligible Green Projects, until the full allocation of funds.

3.1.2. Managing unallocated proceeds: The balance of unallocated Net Proceeds can be managed as per the requirements in Clause 7.2.

Unallocated proceeds will be invested in bank deposits and used to temporarily reduce indebtedness of a revolving nature.

3.1.3. Earmarking funds to Nominated Projects & Assets: The earmarking process can be used to manage and account for funding to the Nominated Projects & Assets and enables estimation of the share of the Net Proceeds being used for financing and refinancing.

The Issuer states that in case of refinancing the look-back period for Eligible expenses covering capital and/or operational expenditures will be less or equal to 36 months from the year of issuance.

V.E reviewed the above elements based on the information and documentation provided by the Issuer during the verification, and nothing has come to our attention that causes us to believe that, in all material respects, the PKN's 2021 Green Bond is not in conformance with the Climate Bonds Standard's Pre-Issuance Requirements (version 3.0) stated in section 3 "Management of Proceeds".

### 4. Reporting prior to issuance

4.1. The Issuer shall prepare a Green Bond Framework and make it publicly available prior to Issuance or at the time of Issuance. The Green Bond Framework shall include, without limitation:

4.1.1. Confirmation that the Bonds issued under the Green Bond Framework are aligned with the Climate Bonds Standard. This may include statements of alignment with other applicable standards, such as the EU Green Bond Standard, the ASEAN Green Bond Standard, Chinese domestic regulations, Japanese Green Bond Guidelines, etc.

The issuer will follow the ICMA Green Bond Principles and LMA Green Loan Principles.

4.1.2. A summary of the expected use of proceeds, as defined under Clause 1.1, and the expected contribution of the relevant sectors or sub-sectors to the rapid transition required to achieve the goals of the Paris Climate Agreement.

The Framework includes a description of the Eligible Projects, as defined under Clause 1.1.



4.1.3. A description of the decision-making process, as defined under Clause 2.1, with particular reference to the requirements in Clause 2.1.2.

The Framework includes a description of the decision-making process, as defined under Clause 2.1, with particular reference to the requirements in Clause 2.1.2.

4.1.4. Information on the methodology and assumptions to be used for: confirming, where required by relevant Sector Eligibility Criteria, the characteristics or performance of Nominated Projects & Assets required to conform to the relevant eligibility requirements under Part C of the Climate Bonds Standard; and any other additional impact metrics that the Issuer will define.

The Issuer has committed to disclose in the reporting documentation the methodology and assumptions to be used for the calculation of impact reporting indicators.

4.1.5. A summary of the approach to the management of unallocated Net Proceeds in accordance with Clause 3.1.

A summary of the approach to the management of unallocated Net Proceeds is included in the Framework (see Clause 3.1.) Additionally, PKN will report the remaining balance of unallocated proceeds in an annual report.

4.1.6. The intended approach to providing Update Reports to reaffirm conformance with the Climate Bonds Standard while the Loan remains outstanding.

The Issuer commits to appoint an approved CBI Verifier to conduct the mandatory Post- Issuance compliance review within a period of one year after the issuance, in conformance with the Climate Bonds Standard requirement.

4.1.7. The list of proposed Nominated Projects & Assets associated with the Bond and the investment areas, as provided in Clause 9.1, into which the Nominated Projects & Assets fall. Where there are limits on the amount of detail that can be made available about specific Nominated Projects & Assets, information shall be presented on the investment areas which the Nominated Projects & Assets fall into, as provided in Clause 9.1, and the Issuer shall provide an explanation of why detail on Nominated Projects & Assets is limited.

The issuer will include examples of projects but because of confidentiality a full list may not be published. Allocations on a consolidated basis by Green Bond Principles categories will be published.

4.1.8. Where a proportion of the Net Proceeds are used for refinancing, an estimate of the share of the Net Proceeds used for financing and refinancing, and the relevant Nominated Projects & Assets or investment areas which may be refinanced. This may also include the expected look-back period for refinanced Nominated Projects & Assets.

The share of refinancing will be communicated to investors prior to the issuance in the Issuer's website.

**4.2.** The Issuer shall include in the Disclosure Documentation:

4.2.1. The investment areas, as provided in Clause 9.1, into which the Nominated Projects & Assets fall.

The selected Projects falls in the "Solar", "Wind", "Marine renewable", "Waste Management "and "Low carbon transport" classification of Climate Bonds Taxonomy.



4.2.2. The intended types of temporary investment instruments for the management of unallocated Net Proceeds in accordance with Clause 7.3.

Unallocated proceeds will be invested in bank deposits and used to temporarily reduce indebtedness of a revolving nature.

4.2.3. The Verifier engaged by the Issuer for the mandatory verification engagements.

The Issuer has commissioned V.E (the “Verifier”) as an independent third-party provider approved by the Climate Bonds Standards Board to perform the Pre-Issuance Verification of the Bond.

4.2.4. The intended approach to providing Update Reports to reaffirm conformance with the Climate Bonds Standard while the Bond remains outstanding, including the location of the published documents.

The rules about the reporting are disclosed in the Framework. The report will be published in the Issuer’s website.

4.2.5. The Climate Bonds Initiative Disclaimer provided in the Certification Agreement.

The Issuer states that they will provide the CBI’s disclaimer in the certification agreement.

V.E reviewed the above elements based on the information and documentation provided by the Issuer during the verification, and nothing has come to our attention that causes us to believe that, in all material respects, the PKN’s 2021 Green Bond is not in conformance with the Climate Bonds Standard’s Pre-Issuance Requirements (version 3.0) stated in section 4 “Reporting prior to issuance”.

## Part C: Climate Bonds Eligibility of Projects & Assets: Sector Specific Criteria

Technical criteria for Selected Projects & Assets:

### 1. Low Carbon Transport Criteria Version 2.0

CBI REQUIREMENTS	V.E'S FACTUAL FINDINGS	GAP ANALYSIS
1. Technical Criteria for Eligible Projects and Assets : Low Carbon Transport		
- Infrastructure related to electric transportation of passengers and freight such as (fast) charging stations and hydrogen fuelling stations.	Eligible Green Projects falling in this sub- category are automatically eligible for Certification under Low Carbon Transport (Version 2.0).	None

### 2. Solar Criteria Version 2.1

CBI REQUIREMENTS	V.E'S FACTUAL FINDINGS	GAP ANALYSIS
2. Technical Criteria for Eligible Projects and Assets : Solar		
- Solar Energy: Onshore and photovoltaics (PV), concentrated solar power (CSP) and solar thermal facilities.	Eligible Green Projects will not have more than 15% of electricity generated from non-renewable sources.	None

### 3. Wind Criteria Version 1.2

CBI REQUIREMENTS	V.E'S FACTUAL FINDINGS	GAP ANALYSIS
3. Technical Criteria for Eligible Projects and Assets: Wind		
- Wind energy: onshore windfarm generation facilities.	Eligible Green Projects will not have more than 15% of electricity generated from non-renewable sources.	None



## 4. Waste Management Criteria Version 1.0 - Mitigation criteria

CBI REQUIREMENTS	V.E'S FACTUAL FINDINGS	GAP ANALYSIS
4.1 Technical Criteria for Eligible Projects and Assets: Waste Management		
<ul style="list-style-type: none"> <li>- Preparation: construction of an automatic sorting plant for mixed municipal waste</li> </ul>	Eligible Green Projects will be for 100% recycled and recyclable materials.	None
<ul style="list-style-type: none"> <li>- Recycling: construction of a mechanical and chemical recycling plant, infrastructure for mechanical recycling of waste, infrastructure for chemical recycling of waste.</li> </ul>	Eligible Green Projects will produce secondary raw materials (such as steel, aluminium, glass, plastics) that will cease to be waste and will be sold to be used as secondary raw materials.	None

## 4.2 Waste Management Criteria version 1.0 – Adaptation &amp; Resilience

The Issuer has disclosed to V.E a document with the main characteristics of the assets falling under this CBI sector criteria, which include:

- Project Combo: Considers the construction of an automatic sorting plant for mixed municipal waste and infrastructure for chemical recycling of waste (includes preparation and recycling).
- Project Pigoz: Considers the construction of mechanical and chemical recycling plants.
- Orlen-Unipetrol – mechanical recycling: Infrastructure for mechanical recycling of waste.
- Orlen-Unipetrol –chemical recycling: Infrastructure for chemical recycling of waste.

## CHECKLIST FOR EVALUATING THE ISSUER'S ADAPTATION &amp; RESILIENCE PERFORMANCE IN RESPECT OF PREPARATION AND RECYCLING FACILITIES

ITEM	PROOF GIVEN	OVERALL ASSESSMENT
Section 1: The issuer identifies the climate related risks and vulnerabilities to the asset/site		
<p><b>1.1</b> Processes are in place (as part of both the asset design and ongoing management) to assess key risks to the assets from a changing climate.</p> <p>These key risks should include the following, plus any others felt to be of concern for the operation of these assets. The risks should be identified and interpreted in terms of the impact on the asset and the related effects for the business – e.g. impact on operating feasibility and schedules, and potential system outages, impact on maintenance requirements etc.</p> <p>N.B. This list taken from World Banks Climate and Disaster Risk Assessment Tool</p> <ul style="list-style-type: none"> <li>- Temperature changes, and extremes in temperature</li> <li>- Extreme precipitation and flooding</li> <li>- Drought</li> <li>- Sea level rise and storm surge</li> <li>- Strong winds</li> </ul> <p>How these affect the asset or site in question will be highly variable and will be for the issuer to identify and relate to their operations. These assessments should use climate information, modelling and scenarios from a peer-reviewed source.</p> <p>This assessment should be done regularly. The frequency of the assessment will depend on the nature of the climate related risks and vulnerabilities and should be specified by the issuer and reported against in subsequent annual reporting.</p>	<p><u>Project Combo</u></p> <p>According to the information provided by the Issuer, the asset will not be affected by any of the risks considered in the Risk Assessment Tool, including flooding, drought, sea level rise, among others.</p> <p>The Issuer reports extreme temperature and extreme temperature changes will be considered during the design stage to assure optimal operation conditions.</p>	Good
	<p><u>Project Pigoz</u></p> <p>The Issuer will conduct an assessment for direct and indirect risks of investment as well as Environmental Impact Assessments (EIA) according to EU countries regulatory authorities. Prior to construction, in accordance with national and EU regulations, assessments must be carried out when the assets have an expected impact on the environment and population, including human health and living conditions, material goods, monuments, and landscape (including cultural landscape).</p>	Good

CHECKLIST FOR EVALUATING THE ISSUER'S ADAPTATION & RESILIENCE PERFORMANCE IN RESPECT OF PREPARATION AND RECYCLING FACILITIES

ITEM	PROOF GIVEN	OVERALL ASSESSMENT
	<p><u>Orlen-Unipetrol –mechanical and chemical recycling</u></p> <p>The Issuer will conduct an assessment for direct and indirect risks of investment as well as Environmental Impact Assessments (EIA) according to the requirements set by EU countries regulatory authorities. Prior to construction, in accordance with national and EU regulations, assessments must be carried out when the assets have an expected impact on the environment and population, including human health and living conditions, material goods, monuments, and landscape (including cultural landscape).</p>	<p>Good</p>
<p>Section 2: The issuer identifies the impacts in larger context (spatially and temporally) beyond the asset/site (i.e. the impacts of the underlying assets and projects on the broader ecosystem and stakeholders in that ecosystem)</p>		
<p><b>2.1</b> Processes should be in place (as part of both the asset design and ongoing management) to assess the impact of the waste management asset on the climate resilience of other stakeholders in the social, economic, and environmental system in which it operates and how to mitigate or reduce any negative impacts</p> <p>These assessments address:</p> <ul style="list-style-type: none"> <li>- Any ways in which waste management facilities might affect the climate resilience of other stakeholders?</li> <li>- Any ways in which waste management facilities improve the adaptation capacity of other users/stakeholders?</li> <li>- For example, they may include:                             <ul style="list-style-type: none"> <li>- Impact on water quality and quantity for other users in the basin</li> <li>- Waste and pollution emitted</li> <li>- Fire hazards</li> </ul> </li> </ul>	<p><u>Project Combo</u></p> <p>The Issuer reports the plant will not have negative effects on the climate resilience of other stakeholders since the plant will not produce any waste that requires disposal or landfilling.</p> <p>The Issuer also reports CO2 from the facility will not be emitted to the atmosphere but captured and used as technical gas in food industry or as feed for future Carbon Capture and utilization (CCU) installations.</p> <hr/> <p><u>Project Pigoz</u></p> <p>The Issuer indicates that the processes in place to prevent and reduce the negative impact of the project will be accepted by the regulatory authorities of EU countries, in accordance with the required EIAs.</p>	<p>Good</p> <hr/> <p>Good</p>

## CHECKLIST FOR EVALUATING THE ISSUER'S ADAPTATION &amp; RESILIENCE PERFORMANCE IN RESPECT OF PREPARATION AND RECYCLING FACILITIES

ITEM	PROOF GIVEN	OVERALL ASSESSMENT
	<p><u>Orlen-Unipetrol – chemical recycling</u></p> <p>The Issuer quotes a life-cycle assessment study conducted by Sphera for BASF Group<sup>2</sup> which concluded that the chemical recycling (pyrolysis) of mixed plastic waste – the process used in these projects - emits 50% less CO2 than incineration of mixed plastic waste.</p>	Good
	<p><u>Orlen Unipetrol - mechanical and chemical recycling</u></p> <p>The Issuer will report the possibilities and methods for preventing and reducing the negative impacts of the project on the environment. Project will be analysed and accepted by regulatory authorities in accordance with EIA in EU countries.</p>	Good

## Section 3: The issuer has designed and implemented strategies to mitigate and adapt to these climate risks and vulnerabilities

<b>3.1</b>	<p>An adaptation plan has been designed and is being implemented to address the risks identified in the assessments above.</p> <p>The issuer has designed or amended asset maintenance plans to ensure that scheduled maintenance is sufficient to cope with the ongoing impacts of climate change; and a plan has been established to govern how to approach emergency maintenance needs arising from sudden climate change impacts (e.g. extreme storms).</p> <p>The issuer has training, capacity and governance arrangements in place for how the organisation will deal with the impacts of exceptional events (e.g. droughts, floods, severe pollution events, extreme storms, winds etc.).</p> <p>The issuer has monitoring and reporting systems and processes to identify high risk scenarios.</p> <p>The issuer has contingency plans to address disruption to operations or loss of the asset and any resulting environmental or social damage.</p> <p>The issuer has processes for feeding risk assessment back into decision-making.</p>	<p><u>Project Combo</u></p> <p>The Issuer indicates that the risks of major accidents as well as natural and construction disasters will be assessed through EIA and will be accepted by regulatory authorities for EU countries at the appropriate stage of the project.</p>	Good
		<p><u>Project Pigoz</u></p> <p>The Issuer indicates that the risks of major accidents as well as natural and construction disasters will be assessed through EIA and will be accepted by regulatory authorities for EU countries at the appropriate stage of the project.</p> <p>The Issuer also reports the required scope of monitoring will be controlled.</p>	Good

<sup>2</sup> <https://www.basf.com/global/en/who-we-are/sustainability/we-drive-sustainable-solutions/circular-economy/mass-balance-approach/chemcycling/lca-for-chemcycling.html>

CHECKLIST FOR EVALUATING THE ISSUER'S ADAPTATION & RESILIENCE PERFORMANCE IN RESPECT OF PREPARATION AND RECYCLING FACILITIES

ITEM	PROOF GIVEN	OVERALL ASSESSMENT
<p>The issuer has a budget allocated to implementing the adaptation plan and has a named member of staff responsible for its implementation.</p> <p>The issuer complies with any existing broader or higher-level adaptation plans, such as NAPAs.</p>	<p><u>Orlen-Unipetrol –mechanical and chemical recycling</u></p> <p>The Issuer indicates that the risks of major accidents as well as natural and construction disasters will be assessed through EIA and will be accepted by regulatory authorities for EU countries at the appropriate stage of the project.</p> <p>The Issuer also reports the required scope of monitoring will be controlled.</p>	<p>Good</p>

## 5. Marine Renewables Version 2.0:

5.1. Disclosure component: In the interests of transparency and disclosure, Issuer of Certified Climate Bonds are required to publicly disclose the following in respect to the assets and use of proceeds incorporated in that issuance:

The Issuer has created a dedicated website<sup>3</sup> for the Selected Project. The following information will be publicly accessible on the website:

REQUIREMENT		DISCLOSURE EVIDENCE	MET
1	Project location and size, including description of marine coastal ecosystem in proximity to planned installations, noting for example whether located in marine protected areas or vulnerable marine ecosystems	The project is located 23 km to the north of the Polish coastline, on the level of Choczewo and Łeba, in the Polish Exclusive Economic Zone in the Baltic Sea. <sup>4</sup>	yes
2	Projected lifespan of the asset/project	Projected lifespan of 25 years.	yes
3	Key stakeholders involved, including other users of the area and surrounding area (sea, land or air depending on what is applicable) of the facility (ies)	The engagement of key stakeholders is described in the Environmental Impact Assessment (EIA) Report.	yes
4	Description of the project activities including details on installation, operation and decommissioning activities	Whole description of the project activities is included in the EIA Report.	yes
5	Expected/current facility capacity and generation during and after the life of the bond	As reported in the project website, the Issuer holds a licence to construct an up to 1.2 GW wind farm, but its final capacity will depend on a number of factors, such as the geological conditions of the Baltic Seabed, environmental conditions and technological developments.	yes
6	Details of where the energy generated is being fed into, and estimated impact of the grid mix	As reported in the project website the infrastructure to be built in Choczewo will receive electricity from the offshore wind farm and transmit it into the national power grid. In the onshore section, 220 kV underground cables will be laid as an extension of the submarine cables. They will carry the electricity to Żarnowiec Bis, a new substation under construction whose precise location is yet to be determined, and further by transmission lines to locations across Poland.  The expected impact on the grid is of Baltic Power estimated impact on the grid mix will be ca. 1,2 GW/ca. 50GW (2,4%).	yes

<sup>3</sup> <https://www.balticpower.pl/>

<sup>4</sup> <https://www.balticpower.pl/about-the-project/>

REQUIREMENT		DISCLOSURE EVIDENCE	MET
7	Projected avoided GHG emissions compared to fossil fuel counterfactual (in kgCO <sub>2</sub> e) using recognised conversion factors	Expected avoided GHG emissions compared to fossil fuel counterfactual (in mgCO <sub>2</sub> e): 3,03 m tons CO <sub>2</sub> annually.	yes
8	The planning standards, environmental regulations and other regulations that the project has been required to comply with	<p>Pursuant to the Regulation of the Council of Ministers of 10 September 2019 on projects that may have a significant impact on the environment (Journal of Laws of 2019, item 1839), the Baltic Power OWF project is classified as a project that may always have a significant impact on the environment, and therefore it required an environmental impact assessment that included:</p> <ul style="list-style-type: none"> <li>- Verification of environmental impact assessment report</li> <li>- Obtaining opinions and approvals required by law</li> <li>- Ensuring the possibility of public participation in the procedure.</li> </ul>	yes

## 5.2. Mitigation Component

Marine Renewable Energy Dedicated transmission infrastructure automatically pass the mitigation component when in compliance with the requirement that Fossil fuel back up can only be used for restart capability and monitoring, operating or resilience measures in the event of no power in the system.

5.3. Adaptation & Resilience Requirements

CHECKLIST FOR EVALUATING THE ISSUER'S ADAPTATION & RESILIENCE PERFORMANCE IN RESPECT OF A MARINE RENEWABLE ENERGY FACILITY

ITEM	PROOF GIVEN	OVERALL ASSESSMENT
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Section 1: The issuer understands the climate related risks and vulnerabilities to the asset/ site

<p>1.1</p>	<p><u>Processes are in place (as part of both the asset design and ongoing management) to assess key risks to the assets from a changing climate and its impact on marine conditions</u></p> <p>These key risks should include the following, plus any others felt to be of concern for the operation of these assets. The risks should be identified and interpreted in terms of the impact on the asset and the related effects for the business – e.g. impact on operating feasibility and schedules and potential system outages, impact on maintenance requirements etc.</p> <p>For all facilities</p> <ul style="list-style-type: none"> <li>- Sea level rise and storm surge</li> <li>- Extreme precipitation and flooding</li> <li>- Increase in geophysical hazards such as earthquakes, tsunamis, volcanic eruptions, and landslides</li> <li>- Changes in wind and storm patterns and intensity</li> <li>- Changes in ocean temperature, currents, and salinity levels</li> </ul> <p>The issuer understands what level of climate change would mean the asset/site is no longer viable and understands under which climate change scenarios this would happen.</p> <p>These processes and assessments use climate information, modelling and scenarios based on peer reviewed methodologies and literature and considering the variability in modelled scenarios.</p> <p>If a project does not have any climate related risks or vulnerabilities evidence must be given to show how this was determined.</p>	<p>The Issuer provided the Baltic Power Offshore Windfarm (OWF) project's Environmental Impact Assessment Report (EIA). According to the IEA, the project received a permit of the Polish Minister of Transport, Construction and Maritime Economy for construction and use of artificial islands, structures, and devices in the Polish Maritime Areas.</p> <p>Pursuant to the Regulation of the Council of Ministers of 10 September 2019 on projects that may have a significant impact on the environment (Journal of Laws of 2019, item 1839), the Baltic Power OWF project is classified as a project that may always have a significant impact on the environment, and therefore it required an environmental impact assessment that included:</p> <ul style="list-style-type: none"> <li>- Verification of environmental impact assessment report</li> <li>- Obtaining opinions and approvals required by law</li> <li>- Ensuring the possibility of public participation in the procedure.</li> </ul> <p>The EIA included several surveys on the abiotic and biotic elements of the marine environment where the project is located.</p>	<p>Good</p>
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## CHECKLIST FOR EVALUATING THE ISSUER'S ADAPTATION &amp; RESILIENCE PERFORMANCE IN RESPECT OF A MARINE RENEWABLE ENERGY FACILITY

ITEM	PROOF GIVEN	OVERALL ASSESSMENT
Section 2: The issuer understands the improvements and impacts in the larger context (spatially and temporally) beyond the asset/site. (i.e. the impacts of their own assets and activities on the broader ecosystem and stakeholders in that ecosystem)		
<p><b>2.1</b> <u>Processes are in place (as part of both the asset design, ongoing operation and decommissioning) to assess the improvements and impacts the asset has on the resilience of other stakeholders in the system in which it operates</u></p> <p>These assessments address:</p> <ul style="list-style-type: none"> <li>- Any ways in which renewable energy facilities might affect, both positively and negatively, the climate resilience of other marine users or relevant/local stakeholders/communities</li> <li>- Any ways in which renewable energy facilities improve the adaptation capacity of other marine users or relevant/local stakeholders/communities.</li> </ul> <p>e.g. Any potential impacts on other marine stakeholders of a highly dense concentration of renewable energy facilities or associated transmission lines?</p> <p>e.g. Any potential impacts that renewable energy facilities may have on coastal resilience by taking strength out of the wind, waves, tidal flows, tidal range or by altering sedimentation processes?</p> <p>If a project does not have any impacts beyond the asset/site evidence must be given to show how this was determined.</p>	<p>The Environmental Impact Assessment (EIA) cover all relevant impacts in the larger context, including the construction and exploitation phase as well as the decommissioning phase.</p>	<p>Good</p>
Section 3: The issuer has designed and implemented strategies to mitigate and adapt to these climate risks and vulnerabilities		
<p><b>3.1</b> <u>An adaptation plan has been designed and is being implemented to address the risks identified in assessments outlined above.</u></p> <p>All risks identified are being addressed in the design and management of the asset.</p> <p>The issuer has designed or amended asset maintenance plans to ensure that scheduled maintenance is sufficient to cope with the ongoing impacts of climate change and a plan has been established to govern how they approach emergency maintenance needs arising from sudden climate change impacts (e.g. extreme storms)</p> <p>The issuer has remotely controlled or automated shutdown procedures, training, capacity, and governance arrangements in place to manage the impacts of exceptional events (such as extreme storms, winds etc.)</p> <p>The issuer has monitoring and reporting systems and processes to identify high risk scenarios</p>	<p>The EIA includes an assessment of the main Environmental Threats throughout the Construction and Exploitation phases.</p> <p>The EIA Report states the Issuer has implemented collision and leakage management plans for the duration of the project, aimed at minimising the impact of such events on marine organisms, in accordance with the applicable laws.</p>	<p>Good</p>

CHECKLIST FOR EVALUATING THE ISSUER'S ADAPTATION & RESILIENCE PERFORMANCE IN RESPECT OF A MARINE RENEWABLE ENERGY FACILITY

ITEM	PROOF GIVEN	OVERALL ASSESSMENT
<p>The issuer has contingency plans to address disruptions to operations or loss of the asset and any resulting environmental or social damage.</p> <p>The issuer has processes for feeding risk assessments back into decision making</p> <p>The issuer has a budget allocated to implementing the adaptation plan and has a named member of staff responsible for its implementation.</p> <p>The issuer complies with any existing broader or higher-level adaption plans, such as NAPAs.</p>		
<p><b>3.2</b> Inspections are carried out regularly and there is a maintenance regime in place for future inspections with evidence that this is adhered to.</p>	<p>The proposal for the monitoring of the environmental impact of the project includes the schedules of individual monitoring surveys.</p> <p>According to the EIA report, the surveys for the assessment of the abiotic and biotic elements of the marine environment are conducted at least annually. These include geophysical, meteorological, hydrological, geochemical, and acoustic surveys.</p>	<p>Good</p>
<p>Section 4: Issuer is pursuing strategies that promote resilience and adaptation across the area in which it operates and beyond</p>		
<p><b>4.1</b> Issuer is involved in stakeholder engagement and collaboration (e.g. policy development, consultation, collaboration, and active engagement with other marine users)</p> <p>e.g. Engaging in hazard response planning for the area, or recovery planning and operations after severe events</p> <p>e.g. Pursuing potential climate resilience benefits for the local area that could be delivered by the marine renewable energy facility, such as a tidal lagoon providing additional storm surge protection for local towns</p> <p>e.g. Alterations made to day-to-day operating procedures in response to stakeholder engagement</p>	<p>The EIA Report indicates the projects of strategic documents along with environmental impact forecasts were subject to a public participation procedure along with social consultations conducted by the competent administrative authorities prior to their adoption.</p> <p>The report identified the different stakeholders involved including administration and state institutions, local government units and institutions, trade organisations, including fishing organisations, among others.</p> <p>As part of the preparation of the EIA Report, information meetings were held with the representatives of fishermen organisations in March 2020. The main conclusions of these meeting have also been disclosed in the report.</p>	<p>Good</p>

## CHECKLIST FOR EVALUATING THE ISSUER'S ADAPTATION &amp; RESILIENCE PERFORMANCE IN RESPECT OF A MARINE RENEWABLE ENERGY FACILITY

ITEM	PROOF GIVEN	OVERALL ASSESSMENT
Section 5: Issuer is delivering positive impacts (or no harm) in terms of key sustainability indicators		
<p><b>5.1</b> <u>The asset or project does not put in jeopardy endangered or at-risk species or habitats or unduly impact ecosystem services.</u> Where there are possible negative impacts to habitats, species, biodiversity, or ecosystem services, mitigation measures are implemented to offset the negative impacts.</p> <p>E.g. Noise and vibration generated by marine renewable energy arrays may disrupt animals, such as marine mammals, fish, birds, turtles, and invertebrates that rely on sound for navigation and other essential functions. The potential for collision-related injury or mortality of marine animals is a key parameter for impact assessment, particularly for tidal energy projects.</p> <p>Alteration of water circulation, sediment transport, and other physical flows by marine renewable energy devices as well as introduction of new electromagnetic fields (e.g. via suspended or seafloor cables) may negatively impact habitat quality. This might be especially relevant for tidal barrage but should be considered for all marine renewable arrays.</p> <p>N.B. In many jurisdictions this will be well covered by existing regulatory or licensing requirements, and those can be referenced here if they provide sufficient evidence to cover this requirement.</p>	<p>The Environmental Impact Assessment cover all relevant impacts in terms of habitats, species, biodiversity, or ecosystem service.</p>	<p>Good</p>
<p><b>5.2</b> <u>Waste</u> is responsibly dealt with, including appropriate disposal of construction waste and oil-based lubricants, including recycling options where possible. Also, reuse or recycling where possible of equipment after decommissioning.</p> <p>N.B. In many jurisdictions this will be well covered by existing regulatory or licensing requirements, and those can be referenced here if they provide sufficient evidence to cover this requirement.</p>	<p>The Issuer reports in each phase of the project implementation, mandatory legal requirements and good practices will be applied regarding waste and sewage treatment.</p> <p>The Issuer also states all vessels involved in the project will meet the requirements and will comply with the regulations resulting from the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78), including, in particular, the procedures contained in "Shipboard Oil Pollution Emergency Plans".</p> <p>The expected types and quantities of waste generated during the exploitation phase of the project were identified and included in the EIA report in accordance with the Regulation of the Minister of the Environment of 02 January 2020 on Waste Catalogue.</p>	<p>Good</p>

## CHECKLIST FOR EVALUATING THE ISSUER'S ADAPTATION &amp; RESILIENCE PERFORMANCE IN RESPECT OF A MARINE RENEWABLE ENERGY FACILITY

ITEM	PROOF GIVEN	OVERALL ASSESSMENT
<p><b>5.3</b> The issuer has recognised and listed the potential risks for <u>accidental site contamination</u> either from leakage of hydraulic fluid (or any other potential pollutant) or from wreckage/debris on the seabed. Demonstrable steps have been taken to minimise these risks and plans have been made for clean-up should a site contamination event occur.</p>	<p>The Environmental Impact Assessment cover all relevant impacts in terms of risks for accidental site contamination.</p>	<p>Good</p>
<p><b>5.4</b> <u>Decommissioning</u> of the plant is planned in a way that considers the environmental impacts.</p> <p>N.B. In many jurisdictions this will be well covered by existing regulatory or licensing requirements, and those can be referenced here if they provide sufficient evidence to cover this requirement.</p>	<p>The EIA report states the decommissioning phase is a reversal of the OWF project construction phase. In the reverse order of the construction phase, individual OWF components will be removed and transported to disposal sites.</p>	<p>Good</p>
<p><b>5.5</b> Issuer has plans and processes in place to effectively manage and minimise <u>conflict</u> with other users of the marine and coastal space.</p> <p>N.B. In some jurisdictions this will be well covered by existing regulatory or licensing requirements, national or regional marine plans and/ or marine spatial plans, and the application of or conformity with these regulations or plans can be referenced here if they provide sufficient evidence to cover this requirement.</p>	<p>The EIA report includes an analysis of possible social conflicts related to the planned project, including the analysis of impacts on the local community.</p> <p>The public consultations for the implementation of the project were based on national and EU legal requirements.</p> <p>The project is located in the Baltic Sea within the Polish Exclusive Economic Zone (EEZ), north of the seashore, at the height of Rowy-Leba towns, at a distance of approx. 23 to 36 km from the shore.</p> <p>According to the EIA Report, the target groups for conducting information meetings were selected taking into account a number of criteria such as, the nature of the project, its location, potential impacts of the planned project, and the degree and type of interest of various social groups identified during other investments at sea.</p>	<p>Good</p>



List of supporting elements provided by the Issuer for Pre-Issuance verification:

- PKN's Green Financing Framework
- Answer to V.E's Questionnaire
- Report on the Environmental Impact Assessment of the Baltic Power Offshore Wind Farm
- PKN recycling projects list
- List of Eligible Projects



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