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Sustainability - Linked Bond Progress Report 2022

Wind. It means the world to us.™

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Vestas®



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1. Introduction

Sustainability-Linked financing is a key enabler of our mission to integrate “Sustainability in everything we do” and helps ensure that we can meet financial and sustainability targets.

Last year, we became the first Danish company to issue Sustainability-Linked bonds, joining an exclusive group of companies that have been able to utilise the new financial instrument so far. Announced in March 2022, the two EUR 500 million Sustainability-Linked Bonds, with a duration of 7 and 12 years, will enable us to make further investments into an industry-leading sustainability performance, as the bonds’ fixed rate is directly linked to our sustainability performance and key environmental challenges.

Our Sustainability-Linked Bond Framework was developed in alignment with the Sustainability-Linked Bond Principles (SLBP) established by the International Capital Markets Association (ICMA) in June 2020.

This Sustainability-Linked Bond Progress Report 2022 is prepared in accordance with Condition 14 of the terms and conditions of the Sustainability-Linked Bonds. It aims to provide information about our level of performance achieved with respect to three Sustainability Performance Targets (SPTs) attached to the bonds. These SPTs are supported by four KPIs focusing on reduction of scope 1 and 2 CO₂e emissions, scope 3 CO₂e emissions per MWh generated and material efficiency.

The performance of the SPTs is to be evaluated based on the percentage reduction against the baseline, and the targets included in the terms and conditions, on an annual basis.



This report provides the basis for evaluating the impact on the bond characteristics and contains information to assess if a Step up Event of financial characteristics that would impact the bond has occurred.

Vestas’ technology is a key enabler of the energy transition and 2022 marks a year of incredible recognition as our sustainability ratings and rankings continued to improve, but our sustainability journey is far from complete.

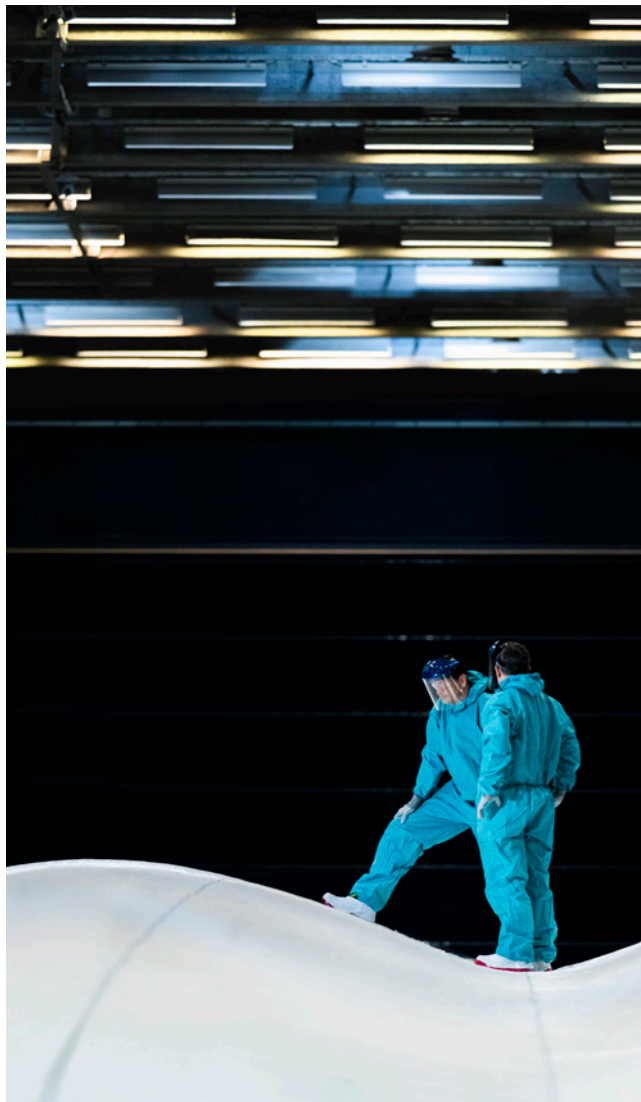
While we are proud of the impact we have enabled so far, we remain aware of the challenges ahead and by linking our sustainability performance with interest rate margins, we reinforce our commitment to realising our ambitious sustainability targets.

1.1

Selection of Key Performance Indicators (KPIs)

The KPIs that have been included for the purpose of this Sustainability-Linked Bond have been chosen because they reflect our key environmental challenges. By focusing our efforts on reducing our environmental footprint and developing a circular economy for all used materials, ambitious targets (SPTs) can be set and strategies on achieving the targets can be formulated and executed in line with our sustainability strategy.

Thus, we have selected the following three KPIs for our Sustainability-Linked Bond Framework:



KPI 1 defines our scope 1 and 2 GHG absolute emissions

This includes CO₂ and other GHG emissions as defined in the GHG Protocol. Scope 1 being direct GHG emissions from Vestas' owned or controlled sources and Scope 2 being indirect GHG emissions from consumption of purchased electricity and heat used in our own operations. Vestas' definition is aligned with the Greenhouse Gas Protocol operational control approach, and a market-based approach is used for calculating scope 2 emissions.

KPI 2 defines our scope 3 GHG emissions per MWh generated

This includes CO₂ and other GHG emissions as defined in the GHG Protocol with specific guidance from the "Corporate Value Chain (Scope 3) Accounting and Reporting Standard". All the relevant categories are calculated and 70% of the impact is included in the KPI 2 calculation as the numerator¹. The denominator is calculated as the amount of estimated lifetime MWh to be generated by the wind turbines produced and shipped in the financial year. This is based on the number and type of turbines along with values for the turbine capacity factor and lifetime.

KPI 3 defines our material efficiency in own operations

This includes the total tonnes of non-recycled waste from Vestas own operations per MW wind turbines produced and shipped in the financial year. Non-recycled waste includes waste that is incinerated or landfilled.

¹ Fulfilling criterion C 18 of the SBTi recommendations TWG-INF-002 (Version 4.2).

1.2

Sustainability Performance Targets (SPTs)

SPT 1

Reduce CO₂e emissions in own operations 100% by 2030, without using carbon offsets from a 2019 baseline.

SPT 2

Reduce CO₂e emissions in the supply chain by 45% per MWh generated by 2030 from a 2019 baseline.

SPT 3

Reduce material efficiency ratio by 90% per MW by 2030 from a 2021 baseline.



1.3

Progress on SPTs

We have undertaken a strategic roadmap to both lead the transition to a world powered by sustainable products as well as to improve our own environmental performance. In 2022, we entered a concentrated executional mode to make concrete progress and build partnerships to reach the SPTs. Some of our initiatives have already delivered results over the year; others are designed to enable our long-term success. But regardless of the time horizon and short-term impact, all are essential to meet our long-term commitments and scale up sustainability.

KPI	SPTs	Base year	2019	2020	2021	2022	Performance against baseline (%)
KPI 1 Scope 1 & 2 GHG absolute emissions (1,000 tonnes)	Reduce CO ₂ e emissions in own operations 100% by 2030, without using carbon offsets from a 2019 baseline	2019	114*	97*	102	100	12
KPI 2 Scope 3 GHG emissions per MWh generated (kg per MWh generated)	Reduce CO ₂ e emissions in the supply chain by 45% per MWh generated by 2030 from a 2019 baseline	2019	6.82*	6.63*	6.65	6.46	5
KPI 3 Material efficiency in own operations (tonnes of waste excl. recycled per MW produced and shipped)	Reduce material efficiency ratio by 90% per MW by 2030 from a 2021 baseline	2021	-	-	2.0	1.6	20

* 2019 and 2020 data has been adjusted in Annual Report 2021 as part of the 2019 baseline update and according to policy for baseline adjustments for carbon emissions. The figures include on- and off-shore.

1.4

Measures to improve performance

KPI	Ambitiousness of SPTs	Measures to achieve SPTs	Performance against baseline (%)
KPI 1	Reduce CO ₂ e emissions in own operations 100% by 2030, without using carbon offsets from a 2019 baseline	<p>Continued to source 100 percent of our electricity from renewable sources Since 2020, we have sourced 100 percent renewable electricity across our operations globally.</p> <p>Pioneering the first hydrogen- powered vessel in the offshore wind industry Building experience for the larger transition of our offshore fleet in the coming years.</p> <p>Introducing sustainably fuelled vehicles and vessels to our service fleet 872 of our company cars, including delivered and ordered, are now (PH)EVs, and we have added 76 sustainably- fueled vehicles to our service fleet.</p> <p>Installed an EV charging battery solution Enabling our employees and local community residents to charge EVs using synchronously-sourced renewable electricity.</p> <p>Increased our use of renewable energy for heating in factories Transitioned two natural gas boilers to biomass energy sources and replaced an oil boiler with an electric heat pump. However, the overall share of renewable energy has decreased in 2022 as use of fossil fuels for transport has increased more than the decrease for heating.</p>	<p>12%</p> <p>Reduction in CO₂e emissions in scope 1 and 2 in 2022 from the 2019 baseline</p>
KPI 2	Reduce CO ₂ e emissions in the supply chain by 45% per MWh generated by 2030 from a 2019 baseline	<p>Secured commitments from strategic suppliers setting emission reduction targets for their own operations and suppliers 96 percent of strategic suppliers in sustainability hotspot areas (accounting for approximately 60 percent of our scope 3 emissions) committed to reduce their emissions in line with our targets.</p> <p>Launched a state-of- the art sustainability data system Incorporating our master data, supplier data, and artificial intelligence to make informed design and procurement choices.</p> <p>Joined the First Movers Coalition of the World Economic forum Committing to procure at least 10 percent near zero emissions steel by 2030 and engaged directly with our steel suppliers to incentivise the production of emissions- reduced and near zero- emissions steel.</p> <p>Wooden- based tower Continued to support Modvion™ as they tested the first 100 meter wooden- based tower.</p>	<p>5%</p> <p>Reduction in supply chain CO₂e intensity in 2022 from the 2019 baseline</p>
KPI 3	Reduce material efficiency ratio by 90% per MW by 2030 from a 2021 baseline	<p>The material efficiency rate is supporting our overarching ambition to produce zero waste turbines by 2040 and is a critical parameter in our industry- leading Circularity Roadmap A commitment to create technically and commercially recyclable turbine blades, increase our material efficiency and decrease our supply chain waste.</p> <p>Optimising our production processes Optimising the use of carbon, glass fabric, and chemicals in our blade manufacturing process.</p> <p>Ensuring production waste is recyclable and establishing year-on-year recycling targets for each factory.</p> <p>Initiatives to map out waste streams in all areas of manufacturing and further reduce the use of materials through waste reductions in design and packaging.</p>	<p>20%</p> <p>Reduction in waste generation in our own operations (to avoid landfill and incineration) in 2022 from the 2021 baseline</p>

2. Bond characteristics

The financial characteristics of any bond issued under this Framework will be specified in its related bond documentation. For any bond issued, there will only be one possible Step Up Date which would impact the financial characteristics of the bond.

The KPIs are assigned the following relative weight of the aggregate coupon Step Up Event, as specified in the security documentation of each respective Sustainability-Linked Bond issued under our Sustainability- Linked Bond Framework.

Depending on the KPI performance in relation to the SPTs, a Step Up Event may occur which will result in an increase in coupon, applying to the relevant bond from the first day of the next interest period following immediately after the Step Up Event until maturity.

An increase in coupon shall be triggered if:

- a KPI has not achieved the SPT on the Reference Year, or
- the reporting does not meet the requirements as set out in the terms and conditions of the relevant bond documentation, or
- the verification of the KPI performance has not been provided and made public as per the terms and conditions of the relevant bond documentation.

No Step Up Event has occurred on any outstanding bonds, based on 2022 results.



3. Accounting policies



3.1

KPI base year rationale and policy for baseline adjustment

The rationale behind the base year of scope 1, 2 and 3 CO₂e emissions is connected to the validation by the Science Based Targets initiative (SBTi) in August 2020. The rationale behind the material efficiency KPI was for it to be consistent with Vestas Circularity Roadmap that was launched in 2021.

Recalculations of base year shall be made in accordance with our policy for baseline adjustments for CO₂e emissions. The levels of CO₂e emissions [base year 2019] and material efficiency [base year 2021] during the base years for the KPIs will be re-calculated to reflect any significant changes in Vestas' structure (e.g., acquisition, divestiture, mergers), or technical changes (for example updated IT system, changes required for obtaining a higher level of assurance). Base year emissions must be recalculated when changes occur that alters base year emissions by at least ten percent. E.g. in 2021, the CO₂e emissions baseline was updated due to mergers and divestments.

Any recalculations of levels of CO₂e emissions or material efficiency during the base years for the KPIs must be reported in this SLB Progress Report and verified by an independent, qualified external reviewer as outlined in the verification section of this Framework.

3.2 CO₂e Emissions

GHG emissions covered by the SPTs cover Vestas' scope 1 and 2 and more than two-thirds of our scope 3 GHG emissions. GHG emissions are measured using the carbon dioxide equivalent (CO₂e) to include relevant GHGs according to Greenhouse gas accounting standards issued by the Greenhouse Gas Protocol.

A distinction is made between scope 1, 2, and 3 emissions, as defined by the Greenhouse Gas Protocol. The improvement from the 2019 baseline is calculated as a percentage and rounded to the nearest whole number, with 0.5 rounded upwards. Vestas has reported on GHG emissions in the past 15 years in our verified Annual Report. Scope 3 CO₂e emissions have been reported on from 2019 and onwards in Vestas' Annual Report.

Direct emissions of CO₂e (Scope 1) (1,000 tonnes)

Scope 1: Direct emissions of CO₂e are calculated on the basis of determined amounts of fuel for own transport and the direct consumption of fossil-based fuels (e.g. oil and gas), with the usage of standard factors published by the UK Department for Business, Energy & Industrial Strategy (BEIS) (2022).

Indirect emissions of CO₂e (scope 2) (1,000 tonnes)

Scope 2: Covers emissions released in connection with the consumption of purchased electricity and heat. Indirect market-based emissions of CO₂e from consumption of electricity are calculated using national grid emission factors published by the International Energy Agency (2022). Indirect CO₂e emissions from district heating are calculated using BEIS (2022) emission factors.

Indirect emissions of CO₂e from the supply chain (scope 3) (million t)

Scope 3: Indirect emissions of CO₂e from the value chain are reported based on the Greenhouse Gas Protocol. Scope 3 categories 8, 9, 10, 11, 13 and 15 are immaterial for Vestas and category 14 is not applicable.

Wind plant: The largest part of the emissions is in category 1 'Purchased goods and services', emissions from materials going into products are calculated based on LCAs following ISO 14040 & 14044, publicly available at vestas.com. The CO₂e emissions of different materials and component types are based on the total quantity of annual produced and shipped turbines and the material composition of the individual turbine types as stated in the LCA reports. Based on this, the global material mass balance is calculated for all materials consumed during the production and CO₂e emissions are calculated using GaBi (2022) emission factors per material group for raw materials used in production and manufacturing processes. The actual steel mass for all produced and shipped turbines is used to calculate global CO₂e emissions for the raw material production of steel and for foundation materials. The CO₂e emissions from concrete and steel used in foundations is based on the same LCA reports as the remaining material groups.

Construction: The CO₂e emissions emitted during the construction of wind turbines is estimated based on the quantity of diesel-fuel consumed per wind turbine produced and shipped in markets in which Vestas is responsible for installing the wind turbine. LCA studies for the diesel combustion per turbine installation and respective BEIS (2022) emission factors are applied.

Service: CO₂e emissions from service operations are estimated using the quantity of spare parts that are replaced and repaired in reporting year, as well as expected repair and replacement levels. GaBi (2022) emission factors for the raw materials are applied to estimate global CO₂e emissions.

Capital goods: Other purchased goods and services and capital goods (category 2) and waste generated in operations (category 5) are estimated based on spend data using BEIS factors for Indirect emissions from the supply chain (2011). Fuel- and energy-related activities are calculated using BEIS factors for emissions related to the production of fuel and NREL factors for renewable energy.

Transportation: Emissions from upstream transportation (category 4) are based on supplier information and estimated based on the LCA reports for weight and distance of components transported and BEIS (2022) carbon emissions factors.

Business travel (category 6) emissions for air flights are activity-based data provided by the travel agency used for all bookings. Employee commuting (category 7) is reported on daily commute by car, which is estimated based on the average number of FTEs and a selected sample of commuting distance. It applies standard factors published by the UK Department for Business, Energy & Industrial Strategy (2022).

End-of-life treatment: of sold products (category 12) is estimated based on material composition of all produced and shipped wind turbines in the reporting year. For materials that are not recyclable, an average GaBi (2022) emission factor for inert landfill is applied.

Indirect emissions of CO₂e from the supply chain (scope 3) (kg CO₂e per Mwh generated)

The amount of MWh generated is based on the number and type of wind turbines produced and shipped in the financial year along with values for wind turbine capacity factor and site-specific lifetime. In relation to the target to reduce carbon emissions in the value chain, Indirect emissions of CO₂e from the value chain per MWh generated include 70 percent of the scope 3 emissions¹.

¹ Fulfilling criterion C 18 of the SBTi recommendations TWG-INF-002 (Version 4.2).

3.3

Material efficiency

As part of the Circularity Roadmap Vestas reported for the first time on materiality efficiency in the 2021 Annual Report. In addition to our material efficiency KPI and outside this framework we have for strategic suppliers introduced KPIs that require a 50% waste reduction in their operations.

Material efficiency (tonnes of waste excl. recycled materials per MW produced and shipped)

Material efficiency is defined as the total tonnes of non-recycled waste materials from Vestas' own manufacturing per MW capacity produced and shipped during the reporting period. Non-recycled waste materials include those that are incinerated or landfilled.

3.4

Independent Limited Assurance scope

The scope of verification is the actual performance of the Vestas Group versus the baseline as a percentage.

The verification will form the basis for evaluating whether a Step Up Event has occurred referring back to Condition 4(c) of the terms and conditions of the Sustainability-Linked Bonds.



4. Independent Limited Assurance Report

Independent limited assurance report on the performance relative to the baseline in Vestas Wind Systems A/S Sustainability-Linked Bond Progress Report 2022

To the Board of Directors of Vestas Wind Systems A/S ("Vestas")

Vestas has engaged us to provide limited assurance on the performance relative to the baseline of KPIs in Vestas' Sustainability-Linked Bond Progress Report for the year ended 31 December 2022 ("SLB Progress Report 2022") as described in the section 'What are we assuring'.

Our conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing came to our attention that causes us to not believe that the performance relative to the baseline on page 6 of Vestas' SLB Progress Report 2022 is prepared, in all material respects, in accordance with the accounting policies developed by Vestas as stated on pages 9-11 of Vestas' SLB Progress Report 2022 ("accounting policies").

What we are assuring

The scope of our work was limited to assurance on the performance relative to the baseline on page 6 of Vestas' SLB Progress Report 2022 for the following KPIs:

- Scope 1 & 2 GHG absolute emissions (1,000 tonnes)
- Scope 3 GHG emissions per MWh generated (kg per MWh generated)
- Material efficiency in own operations (tonnes waste excl. recycled per MW produced and shipped)

We express limited assurance in our conclusion.

Professional standards applied and level of assurance

We performed a limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised) 'Assurance Engagements other than Audits and Reviews of Historical Financial Information' and, in respect of the greenhouse gas emissions, in accordance with International Standard on Assurance Engagements 3410 'Assurance engagements on greenhouse gas statements'. The quantification of greenhouse gas emissions is subject to inherent uncertainty because of incomplete scientific knowledge used to determine the emissions factors and the values needed to combine emissions of different gases.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Our independence and quality control

We have complied with independence requirements and other ethical requirements in the International Ethics Standards Board for Accountants' International Code of Ethics for Professional Accountants (IESBA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour and ethical requirements applicable in Denmark.

PricewaterhouseCoopers applies International Standard on Quality Control 1, ISQM 1, which requires the firm to design, implement and operate a system of quality management including policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our work was carried out by an independent multidisciplinary team with experience in sustainability reporting and assurance.

Understanding reporting and measurement methodologies

The performance relative to the baseline on page 6 in Vestas' SLB Progress Report 2022 needs to be read and understood together with the accounting policies. The accounting policies used for preparation of the SLB Progress Report 2022 are the applied accounting policies developed by Vestas, which Management is solely responsible for selecting and applying.

The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measurement techniques and can affect comparability between entities and over time.

Work performed

We are required to plan and perform our work in order to consider the risk of material misstatement in the performance relative to the baseline for the KPIs in Vestas' SLB Progress Report 2022. In doing so, and based on our professional judgement, we:

- Evaluated the appropriateness of the accounting policies used, their consistent application in the underlying KPIs to measure performance relative to the baseline;
- Made inquiries and conducted interviews with Vestas' Management with responsibility for management and reporting of the performance relative to the baseline to assess reporting and consolidation process, use of company-wide systems and controls performed;
- Performed limited substantive testing on a sample basis to underlying documentation and evaluated the appropriateness of quantification methods and compliance with the accounting policies for preparing the performance relative to the baseline at corporate head office and in relation to selected Vestas reporting sites;
- Performed analytical review and trend explanation of the performance of the underlying KPIs to measure the performance relative to the baseline;
- Performed calculation of the percentage reduction against the baseline; and
- Evaluated the evidence obtained.

Management's responsibilities

Management of Vestas is responsible for:

- Designing, implementing and maintaining internal control over information relevant to the preparation of the performance of the underlying KPIs to measure the performance relative to the baseline that are free from material misstatement, whether due to fraud or error;
- Establishing objective accounting policies for preparing the performance of the underlying KPIs to measure the performance relative to the baseline on page 6 in the SLB Progress Report 2022;
- Measuring and reporting the performance relative to the baseline on page 6 in the SLB Progress Report 2022 based on the accounting policies; and
- The content of the underlying KPIs, for the period 1 January to 31 December 2022, to measure performance relative to the baseline.

Our Responsibility

We are responsible for:

- Planning and performing the engagement to obtain limited assurance about whether the performance relative to the baseline for the KPIs in Vestas' SLB Progress Report 2022 is prepared, in all material respects, in accordance with the relevant accounting policies;
- Forming an independent conclusion, based on the procedures performed and the evidence obtained; and
- Reporting our conclusion to Vestas.

Hellerup, 28 March 2023

[PricewaterhouseCoopers](#)

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