



# GREEN BOND PROGRESS REPORT

APRIL 2021



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# 1. INTRODUCTION

VodafoneZiggo is a leading Dutch technology company that provides essential high-speed fixed and mobile connectivity, and the best entertainment services to our residential and business customers. Of all European countries, the Netherlands has the best mobile and fixed network infrastructure. As a large player in both markets, we heavily contribute to this competitive position of our country and its investment climate.

VodafoneZiggo was established in 2016 and is a joint venture between Vodafone Group and Liberty Global. Supported by our **GigaNet**, the powerful Vodafone and Ziggo networks, we operate as one company with two brands: Vodafone, which focuses on mobile products and services such as nationwide 4G, 5G, and the Internet of Things; and Ziggo, which offers a range of fixed services and products such as Gigabit internet, digital television with attractive entertainment content such as Ziggo Sport, including Formula 1, and exclusive HBO titles provided over next-generation video platforms including our awarded Ziggo Go app. Additionally, we serve the mobile no-frill segment with our second brand hollandsnieuwe. We also offer our flagship Fixed Mobile Convergence portfolio, integrating our fixed and mobile products with attractive converged benefits. As of December 31, 2020, we have connected nearly 1.5 million converged households, over 5 million mobile, nearly 4 million video, over 3 million fixed broadband internet and over 2 million fixed telephony subscribers.



"I am proud of the vital role we play in supporting the Dutch Gigabit society. Apart from providing valuable connectivity and services, we strongly care about our environmental impact. Today we use 100% wind energy and recycle and reuse all our network materials. Through the launch of our first Green Bond, we further commit ourselves to meet our ambitious CSR goals whilst enabling us to continue to invest in projects to lower our environmental impact."

Ritchy Drost  
CFO VodafoneZiggo



Our networks are essential to the daily lives of millions of people as we support and connect the Dutch Gigabit society. In addition to offering added value through technology, we have promoted sustainable and social objectives for many years and through various initiatives. In 2020, under the title 'People, Planet, Progress' we renewed our Corporate Social Responsibility (CSR) ambition for 2025: to halve our impact on the environment and **help two million people move forward in society**. We focus on urgent issues such as the climate crisis, pollution, and social inequality. We view CSR as a colorful spectrum of responsibilities, geared towards our consumption, our behavior, our people, and our social contribution.



*\*Total CO<sub>2</sub> emissions (in kg) shown above include scope 1, 2 and 3 CO<sub>2</sub> emissions*

The energy and climate goals for 2025 that we set in our CSR ambition are in line with the Paris Agreement and have been validated by the Science Based Target initiative (SBTi). We commit to reduce absolute scope 1, 2 and 3 CO<sub>2</sub> emissions 50% by 2025 compared to our 2018 base line and to continue sourcing 100% renewable electricity through 2025. In 2020, we achieved a CO<sub>2</sub> emissions reduction of 29%, compared to our 2018 base line.



We continue to focus our efforts on the following five areas, as integral part of our corporate strategy:



As part of our commitment to a healthy environment, where we aim to halve our environmental impact in the coming 5 years, we published our new **Green Bond Framework** (the Framework) in December 2020 under which Green Bonds can be issued. The Framework sets out the eligibility, selection and evaluation criteria of all green projects and the rules governing the management of the proceeds and the reporting of the project progress and the environmental impact.

The net proceeds or an amount equal to the net proceeds of any Green Bonds raised under the Framework will be allocated to finance or refinance eligible green projects, as per the eligibility criteria and project selection process outlined in the Framework. Such allocation is reflected in our internal records by the use of a Green Bond Register.

Eligible green projects must support our transition towards low-carbon climate resilient growth with lower environmental impact in areas such as renewable energy, energy efficiency, clean transportation, eco-efficient products, technology and processes and green buildings. All eligible green projects will have a look-back period of no longer than 36 months from the time of a Green Bond issuance. This entails that we are able to invest the net proceeds or an amount equal to the net proceeds in existing eligible green projects no older than 36 months from the time of a Green Bond issuance

Any portion of the net proceeds or an amount equal to the net proceeds of a Green Bond that has not been allocated to eligible green projects will be managed in accordance with our standard liquidity management practices.

The Framework is aligned with the ICMA Green Bond Principles<sup>1</sup> and has been certified by Sustainalytics, a leading global independent company in Environmental Social Governance (ESG) research and rating provider.

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<sup>1</sup>The Green Bond Principles are administered by the International Capital Market Association and are available at <https://www.icmagroup.org/greensocial-and-sustainability-bonds/green-bond-principles-gbp/>



## 2. INAUGURAL GREEN BOND

Under the Framework, our inaugural Green Bond was issued in December 2020 by an unconsolidated third-party SPV (VZ Vendor Financing II B.V.), issuing €700 million 2.875% Vendor Financing Notes due January 2029 with proceeds used to refinance existing €600 million 2.5% Vendor Financing Notes due January 2024.

The remaining €100 million of the proceeds has been used to further de-risk our vendor financing program by purchasing vendor financing receivables from our vendor financing facility provider, thereby reducing the reliance on our uncommitted, 360 day, vendor financing lines. Our total vendor financing debt will remain capped at €1 billion.

Issuer	• VZ Vendor Financing II B.V.
Nominal Amount	• € 700 million
Due Date	• 15th January 2029
Coupon	• 2.875%
ISIN Code	• XS2272845798

In connection with the Framework, we are committed to invest an amount equal to the net proceeds of the €700 million Green Bond in existing and/or future eligible green projects over the eligible 2018-2023 period.

In this report we provide an overview of the €700 million funding allocation to various eligible green projects, our environmental impact and an independent assurance report from our external auditor KPMG. The independent assurance report currently excludes the assessment on our environmental impact.



### 3. ELIGIBLE GREEN PROJECT EVALUATION

Our Green Bond Committee includes representatives from Treasury, Investor Relations, CSR and other parties nominated as subject matter experts. Following the steps laid out in the Framework, the Committee must select, evaluate and approve candidate projects put forward by teams across VodafoneZiggo for their eligibility, ensuring that they contributed to achieving the environmental targets detailed in our ESG KPI report. All approved eligible green projects will then be reported and monitored in the register.

In addition to the evaluation process, the Committee regularly convenes, at least once per quarter, to discuss and review the progress of eligible green projects and the ESG KPI report.





## 4. ELIGIBLE GREEN PROJECT ALLOCATION

We have identified and allocated in total €785.6 million funding to eligible green projects, exceeding the minimum required amount equal to the €700 million Green Bond proceeds, therefore, fulfilling the criteria in accordance with the management of proceeds principle laid out in the Framework.

The direct environmental impact by VodafoneZiggo is mainly related to our mobile and fixed networks, our buildings and the mobility of our employees. The indirect environmental impact is related to the production and energy use of our products and services. The mobile and fixed networks alone are responsible for more than 90% of our energy power consumption. Our networks are therefore a significant focus of the Green Bond program.

Therefore, eligible green projects aiming to deliver energy efficiency in our networks accounted for 95% of the allocated funding. The remaining projects focused on green building initiatives such as our data centers.

Eligible Green Projects Portfolio		Green funding				
(as of 31 December 2020)		<u>Amount</u> (in millions)	<u>Instrument (ISIN)</u>	<u>Issuance date</u>	<u>Due Date</u>	<u>Amount</u> (in millions)
Energy Efficiency*	€ 747.0	XS2272845798	Dec 2020	Jan 2029	€ 700.0	
Green Buildings*	€ 38.6					
<b>Total</b>	<b>€ 785.6</b>				<b>€ 700.0</b>	
Percentage of eligible green project portfolio currently financed through green funding (Usage)					89%	
Percentage of green funds - allocated					100%	
Eligible green project portfolio - unallocated (in millions)					€ 85.6	
Eligible green projects in 2018					20%	
Eligible green projects in 2019					24%	
Eligible green projects in 2020					56%	

\* Denotes the project allocation in scope for the independent assurance report





## 5. ENVIRONMENTAL IMPACT

In order to measure the overall environmental impact, several monitoring indicators have been established in line with the provisions of the Framework. The progress of our performance with regard to our carbon footprint and energy consumption is reported on a yearly basis in our ESG KPI report.

We look at correlation between data usage by our customers in both mobile and fixed networks and our overall energy consumption (in MWh) and the CO<sub>2</sub> emissions (scope 1 and 2 only). We observe a positive development that our energy consumption and CO<sub>2</sub> emissions decreased during the 2018-2020 period, despite the fact that our customer data usage has increased significantly driven by - amongst other things - the 4G and 5G mass adoption, increasing internet download speeds and COVID-19 related home working solutions. In the same period, we have invested in several eligible green projects to cope with increasing demand and invest in new technology to run networks more energy efficient. Although we do our utmost best and take our responsibility to run networks more energy efficient, we acknowledge that the energy consumption of our customers might increase due to their own data usage behavior.

We believe by tracking the below mentioned metrics we are able to establish a positive correlation between our investment in all eligible green projects and increasing our energy efficiency and reducing our CO<sub>2</sub> emissions. The environmental impact is calculated at an aggregate level. Individual eligible green projects will likely contribute to higher percentage impact in their specific area.

Furthermore, by investing in such eligible green projects, we contribute to the advancement of **the United Nations' Sustainable Development Goals** (SDG) related to Affordable and Clean Energy (SDG7), Industry, Innovation and Infrastructure (SDG9), Sustainable Cities and Communities (SDG11) and Responsible Consumption and Production (SDG12), as laid out in the Framework. These goals are integral part of the 17 SDGs developed by the United Nations as a call for action to promote prosperity while protecting the planet.



Green Bond Principles	Investment	Impact
Energy Efficiency	Fixed Network € 363.7 million	Kg CO <sub>2</sub> emissions (Scope 1 & 2) / RGU 17% decrease from 1.36 kg CO <sub>2</sub> / RGU in 2019 to 1.13 kg CO <sub>2</sub> / RGU in 2020  Energy use per Exabyte / annum (in MWh) 30% decrease from 20,118 MWh / Exabyte in 2019 to 13,982 MWh / Exabyte in 2020
	Mobile Network € 130.8 million	Kg CO <sub>2</sub> emissions (Scope 1 & 2) / Terabyte 44% decrease from 85 kg CO <sub>2</sub> / Terabyte in 2019 to 47 kg CO <sub>2</sub> / Terabyte in 2020
	700 MHz and 1400 MHz Spectrum € 252.4 million	Energy use per Terabyte / annum (in MWh) 32% decrease from 0.73 MWh / Terabyte in 2019 to 0.50 MWh / Terabyte in 2020
Green Buildings	€ 38.6 million	Energy use in our buildings / annum (in MWh) 15% decrease from 22,548 MWh in 2019 to 19,240 MWh in 2020
Total	€ 785.6 million	> 2 million kg CO <sub>2</sub> emissions reduction in the 2018-2020 period (16% reduction) > 6,000 MWh energy savings in networks and buildings in the 2019-2020 period (2% reduction)

## 5.1 ENERGY USE AND CO<sub>2</sub> EMISSIONS OF FIXED NETWORK

The metric we deploy to monitor the environmental impact of our fixed network energy is energy use per Exabyte / annum (in MWh) and CO<sub>2</sub> emissions per Revenue Generating Unit (RGU<sup>2</sup>). Despite the strong growth trajectory in fixed network data traffic over 2019 (+21%) and 2020 (+42%), we were able to reduce our energy use per Exabyte / annum (in MWh) and kg CO<sub>2</sub> emissions per RGU by 30% and 17% respectively in 2020, supported by eligible green projects initiated to make the network more energy efficient and less pollutant.

### FIXED NETWORK



30% reduction in energy use per Exabyte / annum (in MWh) in 2020  
17% reduction in kg CO<sub>2</sub> emissions per RGU in 2020

<sup>2</sup> Revenue Generating Units (RGU) are separately a Basic Video Subscriber, Enhanced Video Subscriber, Internet Subscriber or Telephony Subscriber. A home, residential multiple dwelling unit, or commercial unit may contain one or more RGUs



## 5.2 ENERGY USE AND CO<sub>2</sub> EMISSIONS OF MOBILE NETWORK

The energy use indicator is calculated using the electricity consumption and the data traffic managed by the mobile network, expressed in Terabytes. Despite the strong growth trajectory in mobile data traffic over 2019 (+33%) and 2020 (+47%), our energy use per Terabyte / annum (in MWh) decreased by 32% in both 2019 and 2020.

We also closely monitor our CO<sub>2</sub> emissions and their correlation with mobile network data traffic. Kg CO<sub>2</sub> emissions per Terabyte decreased by 23% in 2019 and 44% in 2020.

This supports our view that our investments in 4G and 5G technology, including the acquisition of 700 MHz and 1400 MHz spectrum licenses, have resulted in a more energy efficient mobile network, contributing to lower energy use and CO<sub>2</sub> emissions.



### MOBILE NETWORK

32% reduction in energy use per Terabyte / annum (in MWh) in 2020

44% reduction in kg CO<sub>2</sub> emissions per Terabyte in 2020

## 5.3 ENERGY USE IN BUILDINGS

Beside our networks, we also separately monitor the energy use in our buildings, which includes data centers, shops, offices and support points. The total energy use in all our buildings has decreased by 15% from 22,548 MWh in 2019 to 19,240 MWh in 2020.



### BUILDINGS

15% reduction in energy use in MWh in 2020



## 6. ELIGIBLE GREEN PROJECT EXAMPLES

We currently track and monitor approximately 60 eligible green projects in our Green Bond Register. The following examples of eligible green projects have been selected based on their respective materiality and scope in the register.

### 6.1 ENERGY EFFICIENCY

#### 6.1.1 FIXED NETWORK: ANALOGUE TV SWITCH-OFF, SPECTRUM BANDWIDTH UPGRADE AND STREET CABINET REFURBISHMENTS

The eligible green projects within our fixed network centered around our analogue TV switch-off, spectrum bandwidth upgrade and street cabinet refurbishment programs. By switching-off analogue TV technology, we were able to use the frequencies that were freed up more efficiently for higher internet speeds. All of our nearly 4 million TV customers now enjoy a full digital TV technology in super sharp picture quality.

Furthermore, we have increased our spectrum bandwidth in the fixed network from 800 MHz to 1200 MHz, allowing for more data traffic at the same energy consumption level. At the same time, we replaced older equipment in all of 450,000 street cabinets with more energy efficient equipment.

All these project examples have contributed to reducing our energy use and CO<sub>2</sub> emissions whilst accommodating for an increase in data traffic. Kg CO<sub>2</sub> emissions / RGU and energy use per Exabyte / annum (in MWh) have decreased by 17% and 30% respectively in 2020.





Environmental Impact	2018	2019	2020
Scope 1 & 2 Emissions (in kg CO <sub>2</sub> ) <i>year-on-year changes</i>	12,809,252	13,130,155 3%	10,723,966 -18%
Total Fixed RGU <i>year-on-year changes</i>	9,719,500	9,641,700 -1%	9,467,600 -2%
Kg CO <sub>2</sub> Emissions / RGU <i>year-on-year changes</i>	1.32	1.36 3%	1.13 -17%
Fixed Network Energy Use (in MWh) <i>year-on-year changes</i>	159,767	183,070 15%	180,373 -1%
Fixed Network Data Traffic (in Exabyte) <i>year-on-year changes</i>	7.5	9.1 21%	12.9 42%
Energy use per Exabyte / annum (in MWh) <i>year-on-year changes</i>	21,302	20,118 -6%	13,982 -30%

## 6.1.2 FIXED NETWORK: MEDIABOX NEXT

Mediabox Next is our next generation 4K TV platform equipped with a more efficient hardware and a smarter software technology, resulting in less materials required to build and less energy consumption to operate. When compared to the older Mediabox XL, the energy consumption of Mediabox Next decreased, on average, between 30%-80% depending on the mode status. By promoting and encouraging our customers to adopt the Mediabox Next, we would contribute to their lower energy consumption. Our Mediabox Next customer base continues to grow, with more than 220,000 boxes distributed in 2020. As of 30 December 2020, 568,000 customers use Mediabox Next in their homes, representing 18% of our enhanced video customer base.

Energy Consumption	Mediabox Next	Mediabox XL	Difference
Mode 'On'	11.16 watt	Max 59 watt	circa 80% saving on energy consumption
Mode 'Stand-by' - Quick Start	9.29 watt	56 watt	circa 80% saving on energy consumption
Mode 'Stand-by' - Slow Start	1.59 watt	27.5 watt	circa 40% saving on energy consumption
Mode 'Stand-by' - Eco mode	0.34 watt	<0.5 watt	circa 30% saving on energy consumption

Source: [www.ziggo.nl/klantenservice/televisie-radio/ontvangers/energieverbruik-en-stand-by](http://www.ziggo.nl/klantenservice/televisie-radio/ontvangers/energieverbruik-en-stand-by)



### **6.1.3 MOBILE NETWORK: 700 MHZ AND 1400 MHZ SPECTRUM LICENSES**

The acquisition of the 700 MHz and 1400 MHz spectrum licenses in July 2020 has enabled us to further deploy the latest 5G technology within our mobile network. Our spectrum assets constitute a critical part of our network modernisation strategy to increase network coverage and capacity, using more energy efficient equipment and technology.

On top of the benefit in our mobile network, 5G technology can contribute to solving our world climate change challenges. Recent research from STL Partners has shown that 5G technology could reduce CO<sub>2</sub> emissions by almost 1% in 2030 (over 250 million tonnes CO<sub>2</sub> emissions in that year), primarily by accelerating the adoption of wind and solar energy over fossil fuels. The research confirms that various 5G use cases can leverage its key capabilities (low latency, high bandwidth, high device density and reliability) against 4G technology to ensure real-time decision making at scale. One example being using 5G devices to allow wind turbines to automatically change blade direction based on external factors. These use cases will be an integral part of the future energy ecosystem, where everything will need to be connected – appliances, vehicles, energy networks, trading platforms, distributed generation sources, wholesale markets, renewable energy assets, etc.

### **6.1.4 MOBILE NETWORK: 3G DEACTIVATION, 4G AND 5G NETWORK EXPANSION**

As the 4G and 5G mass adoption continues to increase, we experience significant data traffic increases in our mobile network. Our customer promise is to continue to deliver all the required capacity and coverage upgrades to cope with traffic growth, which requires a thorough site planning. This includes upgrading each site with the newest equipment and technology, ensuring that each successive generation of equipment is more energy efficient. In February 2020, we deactivated 3G technology in order to further increase network efficiency. Furthermore, we have installed energy-efficient single radio access network (SRAN) equipment, which enables a single item of radio hardware to run on our multiple 2G, 4G and 5G technologies.

All these initiatives, whilst coping with increasing capacity demand from our customers, have reduced our energy consumption and CO<sub>2</sub> emissions in our mobile network. Kg CO<sub>2</sub> emissions / Terabyte and energy use per Terabyte / annum (in MWh) have decreased by 44% and 32% respectively in 2020.



Environmental Impact	2018	2019	2020
Scope 1 & 2 Emissions (in kg CO <sub>2</sub> ) <i>year-on-year changes</i>	12,809,252	13,130,155 3%	10,723,966 -18%
Mobile Network Data Traffic (in Terabyte) <i>year-on-year changes</i>	115,629	153,978 33%	225,847 47%
Kg CO <sub>2</sub> Emissions / Terabyte <i>year-on-year changes</i>	111	85 -23%	47 -44%
Mobile Network Energy Use (in MWh) <i>year-on-year changes</i>	123,431	111,977 -9%	111,892 0%
Energy use per Terabyte / annum (in MWh) <i>year-on-year changes</i>	1.07	0.73 -32%	0.50 -32%

## 6.2 GREEN BUILDINGS

We have invested €27 million in total over the 2018-2020 period to make all our data centers more eco-friendly. Specifically, we are investing in more efficient cooling solutions and power systems and optimizing overall footprint of the buildings, leading to increased energy efficiency and reduced overall energy consumption. The energy use of our buildings has decreased from 22,548 MWh in 2019 to 19,240 MWh in 2020, representing a 15% decrease.

In the future, we plan to introduce and implement more green building initiatives to all other buildings such as our shops, offices and support points, in order to achieve our target:

- Ensure that all our buildings are certified in accordance with 'recognized energy saving measures' at a minimum C rating by 2023
- Improve our Power Usage Effectiveness (PUE) to <1.5 by 2025
- Invest in New Build Office buildings that have an energy label of A+





## 7. CLOSING REMARKS

In this report, we have shown the progress we have made to achieve our 'People, Planet, Progress' goals to halve our environmental impact and help two million people move forward in society by 2025. The validation of our ambitious goals by the Science Based Target initiative and the certification of our Green Bond Framework by Sustainalytics have provided us with the assurance and confidence that we will be able to achieve our targets.

Through our investments in approximately 60 eligible green projects with a total of €785.6 million spent over the 2018-2020 period, we were able to cut our CO<sub>2</sub> emissions by more than 2 million kg CO<sub>2</sub> (16%) and reduce the energy use in our networks and buildings by more than 6,000 MWh (2%). Our environmental impact in 2018 as shown in this report has been audited by our external auditor KPMG as part of the audit process for the publication of [our 2018 integrated report](#). As we go forward, we aim to have our environmental impact regularly audited by an independent third party on an annual basis.

Furthermore, we continue to identify, implement, track and monitor eligible green projects in renewable energy, clean transportation and eco-efficient and/or circular economy adapted products, production technologies and processes categories, to support our CSR strategy.







# Assurance report of the independent auditor

To: the Board of Directors of VodafoneZiggo Group Holding B.V. and the holders of the VodafoneZiggo Green Bond

## Our conclusion

We have reviewed the Allocation of Proceeds of the Eligible Green Projects Portfolio as included in the section '4. Eligible Green Project Allocation' of the VodafoneZiggo Green Bond Progress Report (hereafter: 'the Report'), dated April 21, 2021 of VodafoneZiggo Group Holding B.V. (hereafter: 'VodafoneZiggo' or 'the Company') based in Utrecht. The Eligible Green Projects Portfolio is marked in the Report with an asterisk (\*).

Based on our procedures performed, nothing has come to our attention that causes us to believe that the Eligible Green Projects Portfolio is not, in all material respects, prepared in accordance with the Eligible investments per category as described in the VodafoneZiggo Green Bond Framework (hereafter: 'the Framework').

## Basis for our conclusion

We have performed our review on the Report in accordance with Dutch law, including Dutch Standard 3000A 'Assurance-opdrachten anders dan opdrachten tot controle of beoordeling van historische financiële informatie (attest-opdrachten)' (Assurance engagements other than audits or reviews of historical financial information (attestation engagements)). Our review is aimed to obtain limited assurance. Our responsibilities under this standard are further described in the section 'Our responsibilities for the assurance engagement on the Eligible Green Projects Portfolio' of our report.

We are independent of VodafoneZiggo in accordance with the 'Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten' (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands. Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants' (VGBA, Dutch Code of Ethics).

We believe that the assurance evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

## Reporting Criteria

The Reporting criteria are the Eligible Green Projects Portfolio and need to be read and understood together with the Eligibility Criteria. VodafoneZiggo is solely responsible for selecting and applying these Eligibility Criteria, taking into account applicable law and regulations related to reporting.

The Eligibility Criteria used for the preparation of the Eligible Green Projects Portfolio are the Eligible investments per category as described in the Framework. The Framework is available online at <https://www.vodafoneziggo.nl/en/samenleving/green-bond/>. The key sections of the Eligibility Criteria are also described in the Appendix of the Report.

## Materiality

Based on our professional judgment we determined materiality levels for each relevant part of the Report. When evaluating our materiality levels, we have taken into account quantitative and qualitative considerations as well as the relevance of information for both stakeholders and the Company.

## Matter related to the scope of our review

The information in the section '5. Environmental impact' is not in scope of our review and we therefore do not provide assurance on this section of the Report.



## **Responsibilities of the Board of Directors for the Eligible Green Projects Portfolio**

The Board of Directors of VodafoneZiggo is responsible for the preparation of the Report including the Eligible Green Projects Portfolio in accordance with the Eligibility Criteria as described in the Framework. It is important to view the Eligible Green Projects Portfolio in the context of these Eligibility Criteria.

The Board of Directors is also responsible for such internal control as it determines is necessary to enable the preparation of the Report including the Eligible Green Projects Portfolio is free from material misstatements, whether due to fraud or error.

## **Our responsibilities for the review of the Eligible Green Projects Portfolio**

Our objective is to plan and perform the review in a manner that allows us to obtain sufficient and appropriate assurance evidence for our conclusion.

Procedures performed to obtain a limited level of assurance are aimed at determining the plausibility of information and vary in nature and timing from, and are less in extent, than for a reasonable assurance engagement. The level of assurance obtained in review engagements with a limited level of assurance is therefore substantially less than the assurance obtained in audit engagements.

Misstatements can arise from fraud or errors and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of users taken on the basis of the Eligible Green Projects Portfolio. The materiality affects the nature, timing and extent of our review procedures and the evaluation of the effect of identified misstatements on our conclusion.

We apply the 'Nadere voorschriften kwaliteitssystemen' (NVKS, Regulations on quality management systems) and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We have exercised professional judgement and have maintained professional scepticism throughout the review, in accordance with the Dutch Standard 3000A, ethical requirements and independence requirements.

Our review included among others, the following procedures:

- Identifying areas of the Eligible Green Projects Portfolio where a material misstatement, whether due to fraud or error, are most likely to occur, designing and performing assurance procedures responsive to these areas, and obtaining assurance information that is sufficient and appropriate to provide a basis for our conclusion.
- Reviewing the application of the Eligibility Criteria used in the preparation of the Eligible Green Projects Portfolio in the Report.
- Considering the internal controls relevant to our review in order to select assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing a conclusion on the effectiveness of the company's internal controls.
- Interviewing relevant staff at VodafoneZiggo responsible for the data collection and reporting of the Eligible Green Projects Portfolio.
- Evaluating internal and external documentation, based on limited sampling, to determine whether the information in the Eligible Green Projects Portfolio is plausible and in line with the Eligibility Criteria.

Amstelveen, 21 April 2021  
KPMG Accountants N.V.

C.A. Bakker RA



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## 10. APPENDIX – GREEN BOND ELIGIBILITY CRITERIA




A list of eligible green projects that may be considered by VodafoneZiggo is shown below:

GBP category	Eligible Projects	SDG mapping
Renewable Energy	<ul style="list-style-type: none"> <li>Investment to improve energy mix through energy agreements focussed on European windfarms, and investment in electricity from renewable sources such as solar and wind</li> </ul>	
Energy Efficiency	<p>Internet of Things ("IoT") – development and operation of networks, services and products that are specific to enabling IoT</p> <ul style="list-style-type: none"> <li>Narrowband Internet of Things (NB-IoT) and enhanced Machine-Type Communication (eMTC) for low-power, low-cost IoT supporting smart metering, smart lighting, smart parking and the sharing economy</li> <li>High-performance IoT or ultra-reliable, low-latency communication (URLLC) to drive efficiency gains through industry automation</li> <li>Low-complexity IoT or massive Machine-Type Communication (mMTC) as enablers for smart cities</li> </ul> <p>Deployment or Research and Innovation in IoT solutions and products such as, but not limited to:</p> <ul style="list-style-type: none"> <li>Investments in smart logistics, mobility, and fleet management to maximise efficiency</li> <li>Smart metering solutions</li> </ul>	  



	<ul style="list-style-type: none"><li>- Invest and operate energy saving software to improve energy efficiency of everyday operations. Examples include, but are not limited to:<ul style="list-style-type: none"><li>- Remote management and data management applications</li><li>- Machine learning and artificial intelligence (AI) applications to reduce energy consumption</li><li>- Evaluation of SON including AI dynamic power management (active network demand pattern recognition to dynamically switch between power modes)</li><li>- Servers virtualization, radio access network (RAN) sharing and further power saving features</li></ul></li></ul> <p>Network transformation (fixed + mobile) that result in energy efficiency, including but not limited to modernisation of network related to broadband, video and telephony services. Examples include, but are not limited to:</p> <ul style="list-style-type: none"><li>- Modernisation of Customer Premise Equipment including cooling optimization, efficient power amplifier, modernization of active antenna and projects related to digital process transformations</li><li>- Retrofitting of legacy networks for fixed and mobile, including placement of legacy radio equipment and investments in 'PowerCube' hybrid technology, which integrates energy supply with onsite battery storage, lithium-ion, lead carbon, flow batteries, fuel cells and large scale energy storage</li><li>- Giganet: Shutting down old analogue technology, improving our spectrum efficiency by expanding fixed spectrum bandwidth to 1.2Ghz and acquiring new mobile spectrum licenses enabling 5G and replacing EuroDocsis 3.0 while implementing EuroDocsis 3.1.</li></ul>	
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<p>Clean transportation</p>	<ul style="list-style-type: none"> <li>– Provision of business public transport cards, paid for by the company, to encourage public transport usage</li> <li>– Electric vans and bikes for technicians</li> <li>– Green lease policy to encourage cleaner and electric vehicle cars</li> </ul>	
<p>Eco-efficient and/or circular economy adapted products, production technologies and processes</p>	<ul style="list-style-type: none"> <li>– Refinance any costs related to recycling of packaging</li> <li>– Implement measures to reduce E-waste (e.g. refurbishing and recycling of set up boxes and mobile phones)</li> <li>– Implement changes to reduce plastic usage and/ or wastage in the value chain</li> </ul>	 
<p>Green Buildings</p>	<ul style="list-style-type: none"> <li>– Ensure that buildings are certified with accordance in “recognised energy saving measures” at a minimum C rating by 2023</li> <li>– Energy Efficient Measures including, not limited to: upgrade properties to improve PUE with a targeted PUE of &lt;1.5 by 2025, power &amp; cooling optimisation, use of base station free air cooling (e.g. adiabatic), smart metering, smart management, LED lighting, Infrastructure optimization, reduction overall location footprint</li> <li>– Invest in New Build Office buildings that have an energy label of A+</li> <li>– Increasing energy efficiency &amp; reducing energy consumption through the decommissioning &amp; consolidation of fixed and mobile network sites, and reduction in floor space.</li> </ul>	