

# **Green Bond Impact Report February 2024**



# Our sustainability strategy

Verizon is a responsible, purpose-driven, trusted brand on the cutting edge of innovation to benefit our four key stakeholders: customers, shareholders, employees and society. We believe that we have a responsibility to leverage our technology, operations and employees to help move the world forward into a more connected, secure and sustainable future.

Key to this is our commitment to protect our planet for future generations. Verizon has set goals around climate

protection, including our long-term goal to achieve net zero operational emissions by 2035. Because most of Verizon's emissions come from the electricity that we use to power our networks, we have set targets to source renewable energy equivalent to 50% of our annual electricity usage by 2025 and 100% by 2030. To demonstrate our commitment to the global transition to renewable energy, Verizon joined RE100 in 2023.

# Our renewable energy strategy and portfolio

Our network operations are located across the country and require a constant supply of electricity to operate. As a result, it is not feasible to power our network operations directly from solar or wind generation facilities during every hour of every day, so we are dependent on sourcing power from our nation's electrical grids. Today, much of that power is "brown" power, produced from conventional fossil fuels such as coal and oil. Through our renewable energy strategy, we are helping to accelerate the transition to greener electrical grids across the U.S.

We are working to bring additional renewable energy to the grids by entering into long-term renewable energy purchase agreements (REPAs) for solar and wind power under development. These agreements do not require physical delivery of energy and can reduce Verizon's long-term exposure to energy price volatility.

Verizon is one of the leading corporate buyers of renewable energy in the U.S. We have entered into 27 REPAs for a

total of approximately 3.6 gigawatts (GW) of anticipated renewable energy capacity. These REPAs position us to exceed our 2025 renewable energy target. We will continue to identify new renewable energy projects under development as we work toward our 2030 renewable energy target and 2035 operational net zero goal. Our REPAs and the associated projects are expected to:

- Enable the avoidance of more than 4.7 million metric tons of greenhouse gas emissions annually, an amount equivalent to removing over 1,000,000 passenger vehicles from the road on an annual basis; and
- Help 10 renewable energy developers build new wind and solar energy facilities in 15 states, bringing new jobs to the local communities and supporting the growth of the U.S. clean energy industry.

<sup>1</sup>Emissions calculated using the EPA Regional eGRID U.S. 2021 (Released January 2023). See <https://www.epa.gov/eGRID/historical-egrid-data>.

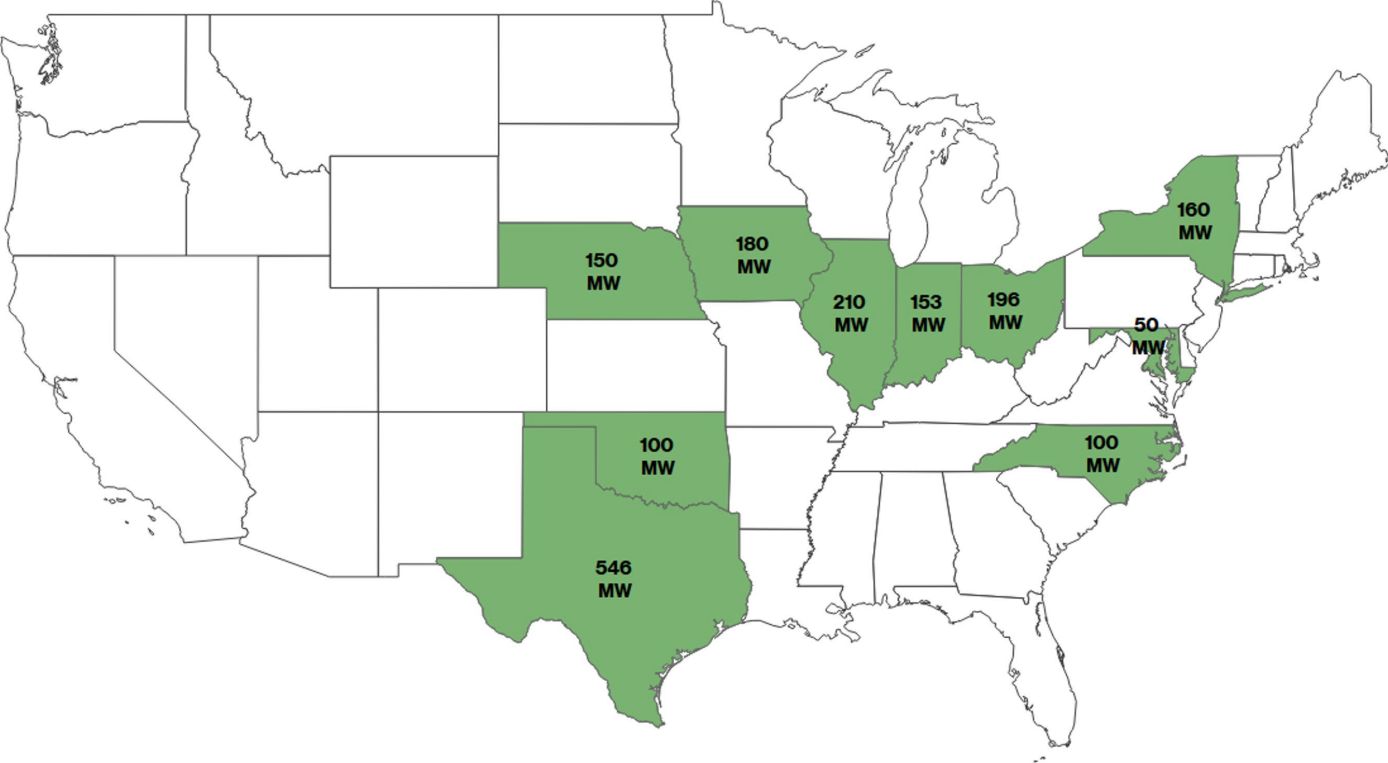


# Projects in commercial operation

As of February 16, 2024, 15 projects related to our REPAs are in commercial operation and generating renewable energy to support the transition to a greener grid. We have contracted for approximately 1.8 GW of the generating capacity of these projects, which represents over 50% of the anticipated aggregate capacity of our REPA portfolio.

Our contracted capacity at these projects is expected to produce roughly 5.6 million megawatt-hours (MWh) annually, which is enough to power over 468,000 homes for a year<sup>2</sup>. The online portfolio consists of eight solar and seven wind projects located in ten states.

## Verizon's online renewable energy portfolio



<sup>2</sup>Based on the EPA GHG Calculator. See <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>.



# Projects that have commenced operations in the past year include:

## Solar project in Indiana

We signed a REPA with Lightsource bp for 152.5 megawatts (MW) of renewable energy capacity at Bellflower Solar. The project became operational in early 2023. Over the life of the project, Bellflower is expected to generate \$30 million in property tax revenue to benefit local schools and other community public services. In addition, more than 350 people worked on-site during peak construction to build the facility. The project also contributes to the U.S. Department of Energy's research on pollinator habitat co-located with large-scale solar.



Photo credit: Lightsource bp, Bellflower Solar

## Solar project in North Carolina

We signed a REPA with Leeward Renewable Energy (LRE) for 100 MW of renewable energy capacity at Oak Trail Solar, which has been fully operational since July 2023. Oak Trail Solar created approximately 300 jobs at peak construction and is expected to provide long-term renewable energy jobs and significant property tax contributions to Currituck County. In addition, 30% of the project acreage will be filled with native vegetation and wildflowers that are utilized for pollinator habitat, screening and other ecological benefits.



Photo credit: LRE, Oak Trail Solar

## Solar project in Ohio

We signed a REPA with LRE for 196 MW of renewable energy capacity at Big Plain Solar. This project has been in commercial operation since July 2023. Big Plain Solar provided approximately 400 construction jobs, and numerous sustainable practices were implemented, including maintaining a soil health monitoring program and curating a 70-acre pollinator habitat.



Photo credit: LRE, Big Plain Solar







Photo credit: LRE, Horizon Solar

## Solar project in Texas

We signed a REPA with LRE for 200 MW of renewable energy capacity at Horizon Solar. This project has been fully operational since December 2023. The project created approximately 400 construction jobs. Horizon Solar is expected to provide numerous benefits to the local community, including significant economic investment of approximately \$30 million in tax payments for the county and schools.



Photo credit: LRE, GSG Wind

## Wind project in Illinois

We signed a REPA with LRE for 80 MW of renewable energy capacity at GSG Wind, the repowering of which was facilitated by the REPA. The repowered facility became fully operational in late 2023. The project created approximately 180 construction jobs.

## Solar project in Maryland

We signed a REPA with Invenergy for 50 MW of renewable energy capacity in the Pennsylvania Jersey Maryland (PJM) Interconnection regional market. The project went into commercial operation in February 2024.



Photo credit: Clearway, Texas Solar Nova

## Two solar projects in Texas

We signed two REPAs with Clearway for an aggregate of 256 MW of renewable energy capacity from the 452 MW Texas Solar Nova complex, which includes two co-located solar projects in Kent County, Texas. The first project has been operational since December 2023 and the second project was completed in February 2024. The Texas Solar Nova projects created nearly 400 construction jobs and several full-time jobs. The \$660 million investment in West Texas will contribute to the local economy through property taxes, with an estimated \$4 million in taxes to be paid in the first year.



# Our green bond program and diversity, equity & inclusion

Verizon is one of the largest corporate green bond issuers in the U.S. Our green bond program is instrumental to our efforts to meet our operational net zero goal and renewable energy targets. Since 2019, Verizon has issued five green bonds totaling approximately \$5 billion, the net proceeds of which have been allocated primarily to finance, in whole or in part, REPA's for new renewable energy projects.

Our Green Financing Framework articulates how our sustainable finance strategy aligns with the UN Sustainable Development Goals (SDGs) and supports our progress on our environmental commitments. The Framework also

includes a pledge to only engage underwriters for our green bond transactions that have established clear and impactful commitments in support of the SDGs, are a diverse-owned firm or have a core mission of promoting diversity, equity and inclusion. Our actions to invest for growth in diverse firms include a commitment to allocate at least 10% of eligible unsecured debt capital markets fees to these firms annually and to elevate their roles and responsibilities on our transactions.



Photo credit: Lightsource bp, Bellflower Solar



# 100% of our fifth green bond allocated to renewable energy

As of February 16, 2024, Verizon has fully allocated the \$994.1 million of net proceeds of our fifth green bond entirely to REPAs for renewable energy projects. The REPAs, including amendments to prior REPAs to make additional investments, were executed between February 2023 and January 2024. The REPAs support renewable

energy projects that are under development in five states – Illinois<sup>3</sup>, Maine, North Dakota, Ohio and West Virginia. The REPAs cover nearly 0.9 GW of new renewable energy generating capacity, of which about 53% is solar energy generating capacity and about 47% is wind energy generating capacity.

## REPA project details

Location	Contracted capacity (MW)	Type	Regional market	Contracted capacity by regional market	Term (years)	Scheduled commercial operation
Illinois	250	Solar	MISO <sup>4</sup>	51%	15	2025
Illinois	200	Wind	MISO <sup>4</sup>		18	2025
Maine	19	Wind	ISO-NE <sup>4</sup>	2%	20	2025
North Dakota	199.4	Wind	SPP <sup>4</sup>	23%	15	2025
Ohio	120	Solar	PJM	24%	15	2027
West Virginia	92.5	Solar	PJM		15	2025

<sup>3</sup>The green bond proceeds allocated to the REPAs for the Illinois projects cover only a portion of the estimated total cost of the REPAs.

<sup>4</sup>MISO is the Midcontinent Independent System Operator; ISO-NE is the Independent System Operator – New England; SPP is Southwest Power Pool.





# Fifth green bond impact reporting

We are reporting the anticipated annual amount of avoided emissions for the renewable energy projects to which the net proceeds of the fifth green bond were allocated.

The amount reported is estimated based on currently available data.

Category	Metric	Calculation	Anticipated impact
Renewable energy	Anticipated greenhouse gas (GHG) emissions avoided per year	Estimated annual renewable energy <sup>5</sup> multiplied by GHG emissions factor <sup>6</sup>	846,009 MT CO <sub>2</sub> e avoided annually <sup>7</sup>

## Anticipated GHG emissions avoided equivalents



**188,263 passenger vehicles driven in one year<sup>8</sup>**



**142,165 homes' electricity use for one year<sup>8</sup>**

<sup>5</sup>The estimated annual amount of renewable energy generated by the projects covered by the REPAs to which green bond proceeds have been allocated was determined based on the full amount of our contracted capacity with respect to those projects.

<sup>6</sup>Emissions calculated using the EPA Regional eGRID U.S. 2021 (Released January 2023). See <https://www.epa.gov/egrid/historical-egrid-data>.

<sup>7</sup>The green bond proceeds allocated to the REPAs for the Illinois projects cover only a portion of the estimated total cost of the REPAs, and, as a result, we have included only an equivalent proportion of the estimated total annual amount of avoided emissions for these projects.

<sup>8</sup>Based on EPA GHG Calculator. See <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>.





# Green bond program cumulative summary

As of February 16, 2024, Verizon has fully allocated the nearly \$5 billion in net proceeds from the green bonds

issued under our green bond program to eligible green investments as set forth below.

## Cumulative allocations (\$millions)

	Renewable energy	Green buildings	Energy efficiency	Biodiversity & conservation	Total net proceeds
2023 green bond	\$994.1	–	–	–	\$994.1
2022 green bond	\$981.4	–	–	–	\$981.4
2021 green bond	\$991.1	–	–	–	\$991.1
2020 green bond	\$994.1	–	–	–	\$994.1
2019 green bond	\$636.9	\$319.3	\$36.7	\$0.8	\$993.7
<b>Total</b>	<b>\$4,597.6</b>	<b>\$319.3</b>	<b>\$36.7</b>	<b>\$0.8</b>	<b>\$4,954.4</b>



# Cumulative anticipated environmental impact

This table highlights the cumulative environmental impacts of the key categories of eligible green investments to which

we have allocated green bond proceeds.

Category	Metric	Calculation	Anticipated impact
Renewable energy	Anticipated GHG emissions avoided per year	Estimated annual renewable energy <sup>9</sup> multiplied by GHG emissions factor <sup>10</sup>	Over 4.5 million MT CO <sub>2</sub> e avoided annually <sup>11</sup>
Green buildings	Square footage contracted for LEED Gold or higher certification	Total building square footage	446,000 sq. ft. contracted for LEED Platinum certification



Verizon Boston Hub building (LEED Platinum certified). Photo credit: © Robert Deitchler / Gensler

<sup>9</sup>The estimated annual amount of renewable energy generated by the projects covered by the REPAs to which green bond proceeds have been allocated was determined based on the full amount of our contracted capacity with respect to those projects.

<sup>10</sup>Emissions calculated using the EPA Regional eGRID U.S. 2021 (Released January 2023). See <https://www.epa.gov/eGRID/historical-egrid-data>.

<sup>11</sup>Includes the impact of the allocation of green bond proceeds to 26 REPAs in full and to one REPA in part.



# Report of Independent Accountants



Ernst & Young LLP

Tel: +1 212 773 3000

One Manhattan West

ey.com

New York, NY 10001-8604

## Report of Independent Accountants

To the Management of Verizon Communications Inc.:

We have examined management's assertion, included in Exhibit A, that an amount equal to the net proceeds from the issuance by Verizon Communications Inc. ("Verizon") of its 5.050% notes due 2033 (the "Allocated Amount") was fully allocated, during the period from May 9, 2023 to February 16, 2024 (the "Reporting Period"), to qualifying Eligible Green Investments (as defined in the "Use of Proceeds" section of the Prospectus Supplement, dated May 5, 2023, to the Prospectus dated September 2, 2022, filed by Verizon with the Securities and Exchange Commission pursuant to Securities Act Rule 424(b)(2) on May 8, 2023) consisting of amounts committed through the execution of virtual power purchase agreements and the purchase of renewable energy pursuant to long-term power purchase agreements that meet the Eligible Green Investments criteria set forth in Table 1 of Exhibit A (the "Criteria"). Management of Verizon is responsible for the assertion, having a reasonable basis for its assertion, selection of the Criteria and the allocation, during the Reporting Period, of amounts to projects that meet the Criteria. Our responsibility is to express an opinion on the assertion based on our examination.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants ("AICPA"). Those standards require that we plan and perform the examination to obtain reasonable assurance about whether management's assertion is fairly stated, in all material respects. An examination involves performing procedures to obtain evidence about management's assertion. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risks of material misstatement of management's assertion, whether due to fraud or error. We believe that the evidence we obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

We are required to be independent of Verizon and to meet our other ethical responsibilities, as applicable for examination engagements set forth in the Preface: Applicable to All Members and Part 1 – Members in Public Practice of the Code of Professional Conduct established by the AICPA.

Our examination was not conducted for the purpose of evaluating (i) whether funds in excess of the net proceeds were allocated to Eligible Green Investments during the Reporting Period, (ii) that any payments made pursuant to any virtual power purchase agreements and the purchase of renewable energy pursuant to long-term power purchase agreements to which amounts were allocated during the Reporting Period were in accordance with such agreements, (iii) the environmental benefits of the Eligible Green Investments, (iv) conformance of any Eligible Green Investments with any third-party published principles, standards or frameworks, such as the Green Bond Principles, dated June 2021, published by the International Capital Market Association or (v) any information included in Verizon's Green Bond Impact Report relating to the 5.050% notes due 2033 or on Verizon's website, other than management's assertion. Accordingly, we do not express an opinion or any other form of assurance other than on management's assertion included in Exhibit A. The determination of the amount to be allocated to the virtual power purchase agreements and the purchase of renewable energy pursuant to long-term power purchase agreements involves estimates. Actual results could differ from those estimates and those differences may be material.

In our opinion, management's assertion, included in Exhibit A, that an amount equal to the net proceeds from the issuance of the 5.050% notes due 2033 was fully allocated during the Reporting Period to qualifying Eligible Green Investments that meet the Criteria, consisting of amounts committed through the execution of virtual power purchase agreements and the purchase of renewable energy pursuant to long-term power purchase agreements, is fairly stated, in all material respects.

February 19, 2024



**Verizon Communications Inc.**  
**1095 Avenue of the Americas**  
**New York, New York 10036**

**Exhibit A**

**Verizon Communications Inc.**  
**Management’s Assertion**

We assert that an amount equal to the net proceeds from the issuance by Verizon Communications Inc. (“Verizon”) of its 5.050% notes due 2033 (the “Allocated Amount”) was fully allocated, during the period from May 9, 2023 to February 16, 2024 (the “Reporting Period”), to qualifying Eligible Green Investments (as defined in the “Use of Proceeds” section of the Prospectus Supplement, dated May 5, 2023, to the Prospectus dated September 2, 2022, filed by Verizon with the Securities and Exchange Commission pursuant to Securities Act Rule 424(b)(2) on May 8, 2023) consisting of amounts committed through the execution of virtual power purchase agreements and the purchase of renewable energy pursuant to long-term power purchase agreements, that meet the Eligible Green Investments criteria set forth in the table below (the “Criteria”). Management of Verizon is responsible for this assertion, having a reasonable basis for its assertion, selection of the Criteria and the allocation, during the Reporting Period, of amounts to projects that meet the Criteria.

**Table 1: Eligible Green Investments**

Renewable energy	<ul style="list-style-type: none"> <li>a) the development, construction or operation of facilities, equipment or systems that generate or transmit renewable energy, such as:               <ul style="list-style-type: none"> <li>i. solar energy; and</li> <li>ii. wind energy.</li> </ul> </li> <li>b) the purchase of renewable energy pursuant to long-term power purchase agreements or virtual power purchase agreements entered into prior to the commencement, or in the case of rehabilitated projects, the re-commencement, of commercial operation of the renewable project, that meet our “additionality” objective of bringing new renewable energy sources to the grids that power our networks such as:               <ul style="list-style-type: none"> <li>i. solar energy; and</li> <li>ii. wind energy.</li> </ul> </li> </ul>
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**Note 1:** The Allocated Amount may include amounts allocated during the Reporting Period to new investments made by us during the Reporting Period, as well as to existing investments made by us prior to May 9, 2023, the date of issuance of Verizon’s 5.050% notes due 2033, but after January 1, 2023.

**Note 2:** The amounts allocated to projects have not yet been disbursed and represent future outlays.

**Note 3:** Proceeds are considered allocated when power purchase agreements or virtual power purchase agreements are executed. In the event that we agree to commit additional amounts to projects we previously agreed to make investments in, then incremental proceeds are considered allocated when the applicable power purchase agreement or virtual power purchase agreement is amended. The allocated amount is calculated as the net present value of estimated cash flows based on megawatt capacity, estimated ratio of actual electricity generated to potential output, estimated hours online each year and fixed power price over the contract term.



# Additional links

## Verizon Green Bond Reports:

<https://www.verizon.com/about/investors/green-bond-reports>

## Verizon ESG Reports:

<https://www.verizon.com/about/investors/corporate-responsibility-report-archive>

## Citizen Verizon:

<https://www.verizon.com/about/responsibility>

## Verizon Green Financing Framework:

<https://verizon.turtl.co/story/green-financing-framework-august-2021>



Photo credit: Lightsource bp, Bellflower Solar

