

# **Green Bond Impact Report February 2025**



**verizon**

# Our sustainability goals

Verizon has set a 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

year-end 2025 and 100% by 2030. We have also committed to set a Science-based Targets Initiative (SBTi)-approved target to reach net-zero emissions across our value chain by 2050.

# 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 renewable sources all day every day, so we are dependent on power from our nation's electrical grids. Today, much of that power is "brown", produced from conventional fossil fuels such as coal, natural gas, and oil.

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

Verizon is one of the leading corporate buyers of renewable energy in the U.S. We have entered into 28 REPA's for a total of approximately 3.7 gigawatts (GW) of anticipated renewable energy capacity. These REPA's 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. In addition to adding incremental energy to the grid, our REPA's and the associated projects are expected to:

- Enable the avoidance of approximately 4.5 million metric tons of greenhouse gas emissions annually, an amount equivalent to removing over 1,000,000 passenger vehicles driven from the road on an annual basis<sup>1</sup>; and
- Help 10 renewable energy developers build new wind and solar energy facilities in 16 states, bringing new jobs to the local communities

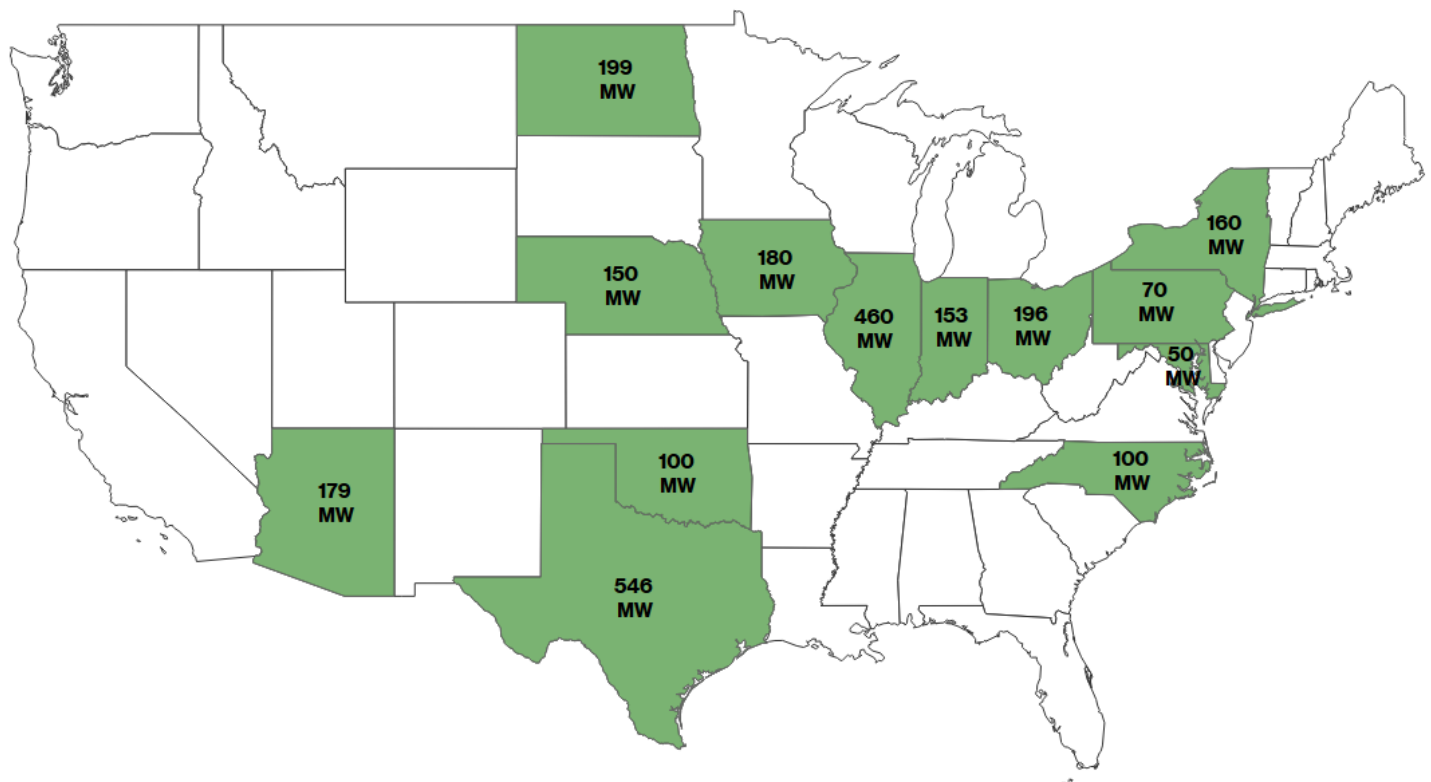
<sup>1</sup> Emissions calculated using EPA Regional eGRID United States 2022 (Released January 2024). See [epa.gov/eGRID/historical-egrid-data](https://epa.gov/eGRID/historical-egrid-data).

# Projects in commercial operation

As of February 1, 2025, 19 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 over 2.5 GW of the generating capacity of these operational projects. This represents about 70% of the anticipated aggregate capacity of our REPA portfolio.

Our operational projects are expected to produce roughly 7.7 million megawatt-hours (MWh) annually, which is enough to power over 630,000 homes for a year<sup>2</sup>. The online portfolio consists of ten solar and nine wind projects located in 13 states.

## Verizon's online renewable energy portfolio



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

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

## Wind project in Pennsylvania

We signed a REPA with Deriva Energy for 70 MW of renewable energy capacity at North Allegheny Wind, which was repowered through this agreement. The repowered facility became fully operational in April 2024. Ten local construction contractors were engaged in the project. The project created 119 jobs at the peak of construction and is expected to provide eight permanent positions throughout operation. Additionally, the project will support the Liberty and Ralston Fire Departments through community benefit donations.

## Solar project in Arizona

We signed a REPA with Leeward Renewable Energy (LRE) for 179 MW of renewable energy capacity at the White Wing Ranch Solar Project. The project is in the California Independent System Operator (CAISO) Interconnection regional market and has been fully operational since October 2024. As part of LRE's continued commitment to land stewardship, White Wing Ranch employs innovative land management practices to promote the regeneration of native desert ecosystems. The project is expected to deliver significant economic benefits to the community and contribute to a substantial property tax base for Yuma County.



Photo credit:  
Leeward Renewable Energy, White Wing Ranch

## Solar project in Illinois

We signed a REPA with Invenergy for 250 MW of renewable energy capacity at the Maple Flats Solar Energy Center in the Midcontinent Independent System Operator (MISO) Interconnection regional market. This project has been in commercial operation since November 2024. The Maple Flats Solar Energy Center created over 230 jobs during construction and is expected to continue benefitting the community through full-time employment opportunities and an average of \$850,000 in property taxes annually.



Photo credit:  
Invenergy, Maple Flats Solar Energy Center

## Wind project in North Dakota

We signed a REPA with NextEra Energy Resources, LLC for 198.8 MW of renewable energy capacity at the Oliver Wind IV. The project became fully operational in December 2024. The project has created approximately 200 jobs and is expected to provide an estimated \$200 million in additional revenue for landowners and \$21 million in tax revenue for the local community.



Photo credit:  
NextEra Energy Resources, LLC, Oliver Wind IV



# Our green bond program

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 net-zero and renewable energy goals. Since 2019, Verizon has issued six green bonds totaling approximately \$6 billion, the net proceeds of which have been allocated primarily to finance, in whole or in part, REPA's for new renewable energy projects.



# Nearly \$700M of our sixth green bond allocated to renewable energy

As of February 1, 2025, Verizon has allocated nearly \$700M of the \$979M net proceeds of our sixth green bond entirely to REPAs for renewable energy projects. The REPAs, including amendments to prior REPAs to make additional investments, which were executed between May 2024 and December 2024, are expected to be financially settled and

support renewable energy projects that are online or under development in five states – Arkansas, Illinois<sup>3</sup>, Indiana, Missouri and Ohio. These REPAs cover 475 MW of new renewable energy generating capacity, of which about 76% is solar energy generating capacity and about 24% 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
Arkansas	100	Solar	MISO <sup>4</sup>	58%	15	2027
Illinois	115	Wind	MISO <sup>4</sup>		18	2025
Missouri	60	Solar	MISO <sup>4</sup>		20	2027
Indiana	150	Solar	PJM <sup>4</sup>	42%	20	2026
Ohio	50	Solar	PJM <sup>4</sup>		17	2026

<sup>3</sup> The green bond proceeds allocated to the Illinois project REPA covers only a portion of the estimated total cost of this REPA.

<sup>4</sup> MISO is the Midcontinent Independent System Operator; PJM is PJM Interconnection.

# Sixth 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 sixth 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>	404,113 MT CO <sub>2</sub> e avoided annually <sup>7</sup>

## Anticipated GHG emissions avoided equivalents



94,261 passenger vehicles driven in one year<sup>8</sup>



70,190 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 REPA 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 United States 2022 (Released January 2024). See [epa.gov/e-grid/historical-egrid-data](https://epa.gov/e-grid/historical-egrid-data).

<sup>7</sup> Since the sixth green bond proceeds cover only a portion of the Illinois project REPA, an equivalent proportion of the estimated total annual amount of avoided emissions for this project is included.

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

# Green bond program cumulative summary

As of February 1, 2025, Verizon has allocated \$5.65 billion of the nearly \$6 billion in net proceeds from the green bonds issued under our green bond program as set forth below.

## Cumulative allocations (\$millions)

Green Bond	Renewable energy	Green buildings	Energy efficiency	Biodiversity & conservation	Total net proceeds
2024	\$699.9	—	—	—	\$699.9
2023	\$994.1	—	—	—	\$994.1
2022	\$981.4	—	—	—	\$981.4
2021	\$991.1	—	—	—	\$991.1
2020	\$994.1	—	—	—	\$994.1
2019	\$636.9	\$319.3	\$36.7	\$0.8	\$993.7
Total	\$5,297.6	\$319.3	\$36.7	\$0.8	\$5,654.4



# 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>	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 United States 2022 (Released January 2024). See [epa.gov/eGRID/historical-egrid-data](https://epa.gov/eGRID/historical-egrid-data).

<sup>11</sup> Includes the impact of the allocation of green bond proceeds to 28 REPAs in full.

# Report of independent accountants



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## Report of Independent Accountants

To the Management of Verizon Communications Inc.:

We have examined management's assertion, included in Exhibit A, by Verizon Communications Inc. ("Verizon") that \$699.9 million (the "Allocated Amount") was allocated during the period from February 23, 2024 to February 13, 2025 (the "Reporting Period"), to qualifying Eligible Green Investments (as defined in the "Use of Proceeds" section of the Prospectus Supplement, dated February 20, 2024, 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 February 21, 2024), related to the issuance of its 5.500% notes due 2054, 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 5.500% notes due 2054 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 the Allocated Amount was 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.

*Ernst & Young LLP*

February 13, 2025



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

## **Exhibit A**

### **Verizon Communications Inc.**

#### **Management's Assertion**

We assert that \$699.9 million (the "Allocated Amount") was allocated, during the period from February 23, 2024 to February 13, 2025 (the "Reporting Period"), to qualifying Eligible Green Investments (as defined in the "Use of Proceeds" section of the Prospectus Supplement, dated February 20, 2024, 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 February 21, 2024), related to the issuance of its 5.500% notes due 2054, 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	<p><b>a)</b> the development, construction or operation of facilities, equipment or systems that generate or transmit renewable energy, such as:</p> <ul style="list-style-type: none"><li>i. solar energy; and</li><li>ii. wind energy.</li></ul> <p><b>b)</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:</p> <ul style="list-style-type: none"><li>i. solar energy; and</li><li>ii. wind energy.</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 February 23, 2024, the date of issuance of Verizon's 5.500% notes due 2054, but after May 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:

[verizon.com/about/investors/green-bond-reports](https://verizon.com/about/investors/green-bond-reports)

## Verizon Responsible Business Report:

[verizon.com/about/investors/corporate-responsibility-report-archive](https://verizon.com/about/investors/corporate-responsibility-report-archive)

## Citizen Verizon:

[verizon.com/about/responsibility](https://verizon.com/about/responsibility)

## Verizon Green Financing Framework:

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



**verizon**