

SASB index

For the year ended December 31, 2021

Published April 2022

The Sustainability Accounting Standards Board (SASB) is an independent, standards setting organization, under the auspices of the Value Reporting Foundation that has developed voluntary industry-specific standards for companies to disclose consistent and decision-useful environmental, social and governance (ESG) information for investors. We share SASB's stated vision of global capital markets in which a shared understanding of sustainability performance enables companies and investors to make informed decisions that drive long-term value creation and better outcomes for businesses and their shareholders, the global economy and society at large.

This report provides information with respect to the disclosure topics and accounting metrics in the SASB Telecommunications standard. Following the completion of the sale of Verizon Media on September 1, 2021, we are no longer reporting pursuant to the Internet Media & Services standard. The inclusion of information in this report should not be construed as a characterization regarding the materiality or financial impact of that information. Please see our Annual Report on Form 10-K for the year ended December 31, 2021, and other publicly filed documents, which are available at <https://www.verizon.com/about/investors/>.

Unless otherwise indicated, quantitative data is provided as of or for the years ended December 31, 2021, 2020 and 2019, where available. Where relevant, data measurement techniques, the bases of calculations and changes in the basis for reporting or reclassifications of previously reported data are noted. Verizon seeks independent limited assurance for select ESG data, including our emissions profile, each year. You can read the Independent Accountants' Review Reports [here](#). We will update this report to include the 2021 metrics that are currently undergoing independent limited assurance when the Independent Accountants' Review Report with respect to those metrics has been issued.

Note on non-financial reporting: Non-financial information is subject to measurement uncertainties resulting from limitations inherent in the nature of, and the methods used for determining, such data. Some of our disclosures in this report are based on assumptions due to the inherent measurement uncertainties. The selection of different but acceptable measurement techniques can result in materially different measurements. The precision of different measurement techniques may also vary.

Forward-looking statements. This report contains statements based on our current assumptions and expectations about our future performance, including statements regarding our ESG targets, goals, commitments and programs and other business plans, initiatives and objectives. These statements typically include words such as "will," "aim," "anticipate," "believe," "drive," "estimate," "expect," "intend," "may," "plan," "project," "strategy," "target," and "goal" or similar terms. For those statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. Our actual future results, including the achievement of our targets, goals or commitments, could differ materially from our projected results as the result of changes in circumstances, assumptions not being realized, or other risks, uncertainties and factors. For information on certain factors that could cause actual events or results to differ materially from our expectations, please see our filings with the Securities and Exchange Commission, including our most recent annual report on Form 10-K and subsequent reports on Forms 10-Q and 8-K. Investors are cautioned not to place undue reliance on any such forward-looking statements, which speak only as of the date they are made. Verizon undertakes no obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.

Activity metrics

SASB code	Metric	2021	2020	2019
TC-TL-000.A	Number of wireless retail connections	142,806,000	120,880,000	119,692,000
	Wireless retail connections are retail customer device postpaid and prepaid connections as of the end of the period. Retail connections under an account may include those from smartphones and basic phones, as well as tablets and other internet devices, including wearables and retail IoT devices. Wireless retail connections are calculated by adding total retail postpaid and prepaid new connections in the period to prior period retail connections, and subtracting total retail postpaid and prepaid disconnects in the period.			
TC-TL-000.C	Number of wireline broadband connections	7,365,000	7,129,000	6,956,000
	Wireline broadband connections are the total number of connections to the internet using Digital Subscriber Line (DSL) and Fios Internet services as of the end of the period. Wireline broadband connections are calculated by adding broadband net additions in the period to prior wireline broadband connections. Wireline broadband net additions are calculated by subtracting the wireline broadband disconnects from the wireline broadband new connections.			
TC-TL-000.D	Network traffic in petabytes	Pending Independent Assurance	199,318	173,500
	Network traffic is calculated according to the estimation methodologies detailed in Table 2 of Appendix A to the Independent Accountants' Review Report in terabytes divided by 976.5625. Where possible, Verizon uses actual network data throughput. In the event that actual data is unavailable, some network data might be extrapolated based on historical data, seasonality, expected growth or other business changes. For more information, see the Independent Accountants' Review Reports relating to Verizon's schedule of environmental indicators.			

Accounting metrics

Environmental footprint of operations

SASB code	Metric		2021	2020	2019
TC-TL-130a.1	Total energy consumed in gigajoules (GJ)	Pending Independent Assurance		41,138,769	42,450,781
	Percentage grid electricity	Pending Independent Assurance		86.1	84.7
	Percentage renewable energy	Pending Independent Assurance		3.0	1.5
<p>Total energy consumed is calculated based on emissions sources included in scope 1 and 2 GHG emissions, namely natural gas, gasoline, diesel, jet fuel, propane, kerosene, compressed natural gas, B02, B05, B11, B20, E85, methanol, ethanol, electricity, steam and chilled water.</p> <p>Percentage grid electricity is calculated as total electricity consumed as purchased from the grid (and reported for scope 2 GHG emissions) divided by total energy consumed.</p> <p>Percentage renewable electricity is calculated as total renewable electricity generated on-site or purchased in the form of energy attribute certificates divided by total energy consumed.</p> <p>For more information, see our Emissions profile.</p> <p>Verizon has set interim and long-term goals to reduce the carbon footprint of our operations:</p> <ul style="list-style-type: none"> • Expect to source or generate renewable energy equivalent to 50% of our total annual electricity consumption by 2025. • Expect to achieve a 53% reduction in our scope 1 and 2 operational emissions by 2030 over a 2019 baseline to limit global warming to a 1.5°C (approved by the SBTi). • Expect to achieve net zero operational emissions by 2035. <p>To achieve these goals, we are entering into long-term virtual power purchase agreements (VPPAs) for solar and wind power under development that will bring additional renewable energy to our local electrical grids. We generally do not expect to take physical delivery of the energy from a facility under a VPPA. Rather the facility operator sells the energy into the wholesale market, and we receive the renewable energy credits (RECs) associated with the energy sold. We intend to retire these RECs against our actual energy consumption to track our progress in meeting our goals.</p> <p>As of December 31, 2021, Verizon has entered into 20 long-term VPPAs for approximately 2.6 gigawatts (GW) of anticipated renewable energy capacity. As of such date, projects with 0.3 GW of anticipated renewable energy capacity have commenced commercial operation, and the remaining projects are expected to commence commercial operation over the next three years.</p>					

Data privacy

SASB code	Metric	2021	2020	2019
TC-TL-220a.1	Description of policies and practices relating to behavioral advertising and customer privacy			
	Please see Data protection and privacy for a discussion of Verizon's corporate policies and operating procedures governing how we collect, use, retain and protect data. Detailed information about Verizon's privacy policies and procedures can be found at the main Privacy Policy page on our corporate website. From this page, you can find links to our main privacy policy, supplemental policies we have for some of our apps and services, and separate privacy policies maintained by our affiliated companies.			
	Our policies and procedures are subject to controls such as internal audits, observations, testing, employee and vendor training, and internal attestations that all serve to promote ongoing compliance by the business.			
TC-TL-220a.2	Percentage of customers whose information is used for secondary purposes	100	100	100
	The reported metric is 100% because, as described in the Verizon privacy policy, Verizon uses customer data to improve our products and services, which is one of the measures SASB uses to define secondary purposes for purposes of this metric.			
TC-TL-220a.3	Total amount of significant monetary losses as a result of legal proceedings associated with privacy	ns	ns	ns
	ns – not significant. For purposes of reporting this metric, we have established a significance threshold that is lower than the materiality threshold for reporting legal proceedings in our SEC reports and will report any loss of \$100 million or more, individually or in the aggregate.			
TC-TL-220a.4	Number of U.S. law enforcement requests for customer information	156,000+	78,000+	Not available
	Number of customer selectors whose information was requested	292,000+	156,000+	Not available
	Percentage resulting in disclosure	90.4	88.8	Not available
	The metrics reported for 2020 are for the six months ended December 31, 2020. Beginning with 2021, we are reporting full year metrics.			
	The metrics include subpoenas, warrants and orders that we receive from local, state and federal law enforcement in the U.S., but do not include wiretap orders, pen register and trap and trace orders, national security demands and emergency requests, which we separately report in our Transparency Report . A customer selector is an information point, such as a telephone number, used to identify a customer. Verizon does not maintain a record of unique customers whose information was requested because multiple selectors may refer to the same customer (e.g., the same person may have multiple phone numbers) and selectors may be duplicated across requests (e.g., the same phone number requested in two subpoenas is counted as two selectors). We define a disclosure as a full or partial disclosure of information in response to a request.			
	Verizon maintains formal processes and procedures for releasing customer information in response to law enforcement requests. For more information, please see our semi-annual Transparency Report .			

Data security

SASB code	Metric	2021	2020	2019
TC-TL-230a.1	Number of data breaches			
	Percentage involving personally identifiable information	Not available	Not available	Not available
	Number of customers affected			
Except as required by law, Verizon does not report this information.				
TC-TL-230a.2	Description of approach to identifying and addressing data security risks, including use of third-party cybersecurity standards			
	<p>Verizon's comprehensive information security program includes, among other aspects, vulnerability management, antivirus and malware protection, file integrity monitoring, encryption and access control. Verizon's enterprise-wide Information Security Policy is aligned with the National Institute of Standards and Technology's (NIST) Framework for Improving Critical Infrastructure Cybersecurity (Version 1.1). Verizon also maintains a robust cyber security insurance program.</p> <p>For more information about our approach to managing data security risks, see Cybersecurity.</p>			

Product end-of-life management

SASB code	Metric	2021	2020	2019
TC-TL-440a.1	Materials recovered through take-back programs in pounds	35,525,183	35,658,704	44,105,739
	<p>Verizon defines e-waste as electronic products and parts that are at the end of their useful life and/or have been returned by customers. E-waste generated by our business operations includes cell phones, chargers, set-top boxes, network equipment, batteries and associated plastic components. The 2019 metric also included e-waste collection from our employees and community members through public recycling rallies.</p> <p>We divert as much e-waste as possible from landfills by reusing or responsibly recycling materials. To the extent practicable, we reuse electronic products and parts internally. When internal reuse is not possible, we market these materials for reuse through approved vendors or work with partners to responsibly recycle them.</p> <p>For more information on our recycling programs, see E-waste: reducing, reusing and recycling.</p>			

Competitive behavior & open internet

SASB code	Metric	2021	2020	2019
TC-TL-520a.1	Total amount of significant monetary losses as a result of legal proceedings associated with anti-competitive behavior regulations	ns	ns	ns
<p>ns – not significant.</p> <p>For purposes of reporting this metric, we have established a significance threshold that is lower than the materiality threshold for reporting legal proceedings in our SEC reports and will report any loss of \$100 million or more, individually or in the aggregate.</p> <p>For information on Verizon’s global antitrust program, please see Antitrust compliance.</p>				
TC-TL-520a.2	Average actual sustained download speed in Megabits per second (Mbps) of (a) owned and commercially-associated content and (b) non-associated content purposes	Not available	Not available	Not available
<p>Verizon does not measure download speeds on the bases specified in the standard (i.e., owned and commercially associated content versus non-associated content). We support an open internet and have been at the forefront of innovation in the broadband ecosystem, advocating consistent policies aimed at creating a robust, level and dynamic playing field for all participants in the internet environment. Please see our commitment to broadband consumers.</p> <p>For information on the expected and actual performance of our networks and our network management practices, please see Network performance.</p>				
TC-TL-520a.3	Description of risks and opportunities associated with net neutrality, paid peering, zero rating and related practices	<p>Please see Verizon’s SEC reports for our disclosures relating to the risks and opportunities associated with laws and regulations addressing net neutrality. Verizon’s Interconnection Policy for Internet Networks establishes separate requirements for each of our three regional internet networks, with the requirements scaled for each network.</p>		

Managing systemic risks from technology disruptions

SASB code	Metric	2021	2020	2019
TC-TL-550a.1	System average interruption frequency per customer as the average number of disruptions per customer	Not available	Not available	Not available
	Customer average interruption duration as the average number of hours per customer	Not available	Not available	Not available
	Verizon does not currently calculate and report metrics relating to the frequency and duration of system disruptions in the manner specified in the standard.			
TC-TL-550a.2	Discussion of systems to provide unimpeded service during service interruptions			
	<p>Verizon is an industry leader in operating resilient and reliable networks that support the needs of our customers. Our networks in the U.S. include various design elements, technologies and business processes that work together to enhance the reliability of our services.</p> <p>Designed with dual path and equipment redundancy. Verizon's network design includes redundancy on critical paths and for critical network components to mitigate the impact of network events on customers. We use forward-looking risk assessments to plan and maintain our fiber backhaul configuration for critical network sites. Such sites may contain traffic aggregation points, data centers, or other technical facilities, and typically have fiber backhaul deployed in a resilient ring or hub configuration, as well as dual diverse entrance facilities supporting our core infrastructure. Verizon has also implemented a "meshed" core network architecture, which enables network equipment to switch traffic almost instantly across multiple available transmission paths between two endpoints. When available, this enables the network to self-recover promptly from outages to physical facilities (e.g., a fiber cut).</p> <p>Use of battery and generator technology. To minimize the impact of power disruptions at critical sites, we deploy reserve power in the form of batteries and/or generators. Our switching facilities are equipped with battery backup power and generators. Macro sites have battery backup power as well, and the majority are equipped with generators. In addition, we have a fleet of portable backup generators that can be deployed as needed.</p> <p>Reliability-focused business processes. To minimize the likelihood of congestion on our networks, Verizon proactively manages and augments network capacity based on defined thresholds associated with the expected voice, video, application, and data traffic patterns across our network. To help ensure appropriate network diversity and redundancy, we perform several internal audits per year. Our engineering standards for strategic directional platforms require high availability equipment with auto-failover capabilities to protect critical services. Requirements for diversity and redundancy for critical paths and network sites are reviewed and addressed as part of network planning, engineering and operations activity.</p> <p>For more information on how we manage business continuity risk and the measures we have undertaken to make our networks more resilient, please see our TCFD Report and Network reliability and resilience.</p>			