Energy & Sustainability Tracker: Telcos, 2025

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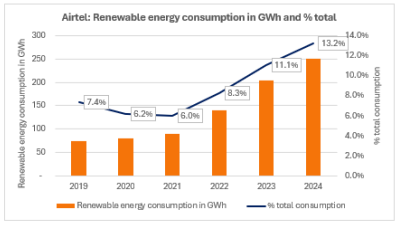
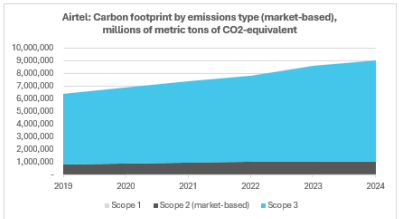
Results by company

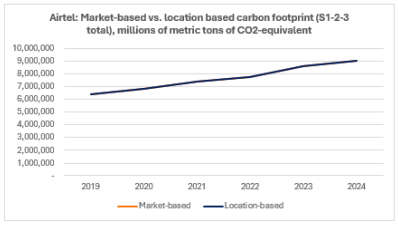
Note: this study tracks 66 telcos, or ~85% of the global market. For all 66, we have data on energy use and scope 1 and 2 emissions, or developed reasonable estimates. For 50 of the 66, we also have scope 3 emissions data, allowing for a value chain analysis. A subset of 32 of the 66 publish traffic data, allowing for traffic-based analysis. To extrapolate from subsets to global market estimates, we scale up the sample by dividing by the % of total global market captured by the respective sample.

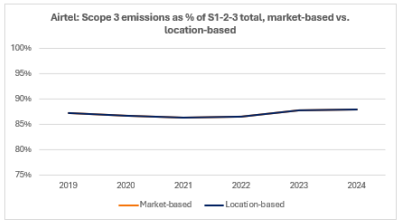
Select Company ---> Airtel

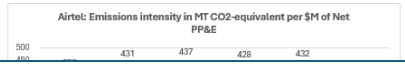
How has renewable energy grown as a % of total consumption? What is the carbon footprint by type of emission (S1, S2l, S2m, S3)? How have emissions evolved relative to revenues & net PP&E?











Key terms

-El MWh: Total electricity consumption, in megawatt hours

-En MWh: Total energy consumption (electric plus other energy types e.g. diesel & gas), in megawatt hours

-S1: Scope 1 emissions: Direct greenhouse gas emissions from sources that are owned or controlled by the company. This includes emissions from combustion in owned/controlled boilers, furnaces, vehicles, as well as fugitive emissions and process emissions.

-S-2l: Scope 2 emissions - Location-based: Indirect emissions from purchased electricity, steam, heating, and cooling, calculated using average emission factors from the regional grid where the energy consumption occurs.

-S2m: Scope 2 emissions - Market-based: Indirect emissions from purchased electricity, steam, heating, and cooling, calculated using emission factors from contractual instruments (such as renewable energy certificates, power purchase agreements, or supplier-specific emission rates) that reflect the company's deliberate energy purchasing choices.

-S3: Scope 3 emissions: All other indirect emissions that occur in the company's value chain, both upstream and downstream. A total of 15 categories are defined by the GHG Protocol; they include emissions from purchased goods and services, business travel, employee commuting, transportation and distribution, waste disposal, use of sold products, and end-of-life treatment of sold products, among other categories.

For most telcos, category 1 (purchased goods & services) is well over 50% of total scope 3 emissions. Category 1 represents the carbon footprint of the supply chain, in effect. At Swisscom, for instance, category 1 was 75% of total scope 3 emissions in 2024. Category 11, use of sold products, can also be significant, especially for mobile telcos which sell or distribute devices to end users, as well as cable companies selling routers & other CPE. Cat11 was about 10% for Telstra and Vodafone in the last fiscal year, for instance. For cable and other fixed broadband companies, category 11 can be more significant. For these companies, improving the energy efficiency of the products (typically electronics) that they sell to end users is crucial to