

in 2020, growing to 14% in 2021 and 15% in 2022. That greater use of renewables helped limit emissions, but with energy consumption continuing to grow 3-4% per year, aggregate emissions were flat. Table 1 presents summary stats for the telco industry, based on our analysis of the group of 32.

Table 1: Energy and emissions metrics for the global* telco industry, 2020-22

Metric	2020	2021	2022	2020-22 CAGR
Total energy consumption (MWh)	307,036,473	319,379,162	328,415,623	+3.4%
Purchased electricity as % of total energy consumed	89.4%	89.8%	90.5%	n/a
Renewable energy, % total energy	10.03%	14.35%	15.05%	n/a
Scope 1 & 2 emissions (MT CO2e)	141,242,401	132,850,119	132,118,569	-3.3%
S1/S2 emissions per unit of revenue (MT CO2e/\$M)	79	70	74	-2.9%
S1/2 emissions in MT CO2e per GWh of energy used	460	416	402	-6.5%

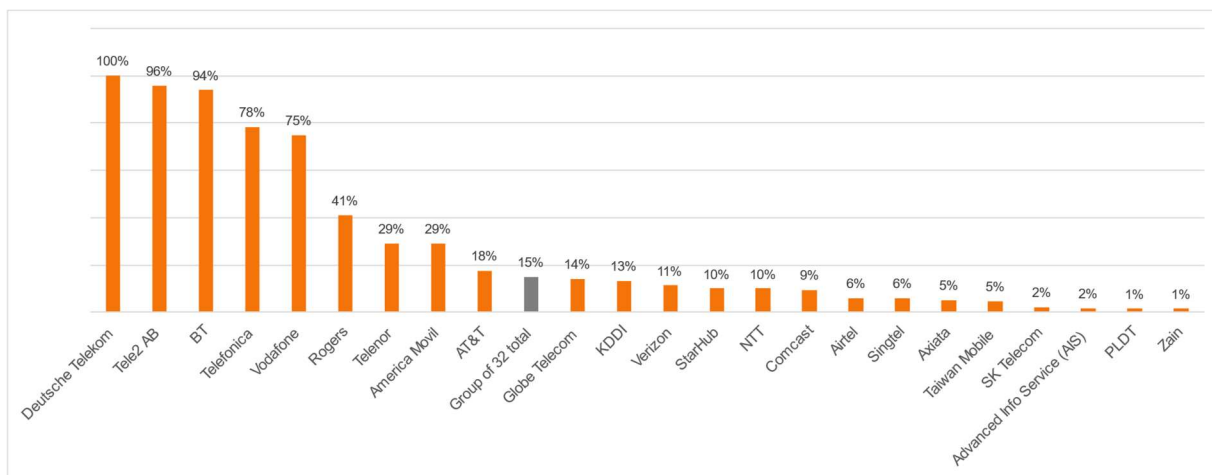
Source: MTN Consulting

*Global market totals are extrapolated based on the 32 telco sample.

Increasing their use of renewable energy is an easily identifiable, measurable way for telcos to reduce emissions. As such, tracking telcos' use of renewable energy is key to monitoring real progress. As the table above shows, overall the industry made a bit of progress from 2020 to 2022, lifting renewable's share to 15% of total. That increase is behind the industry's lower emissions intensity; as the table also shows, total S1/2 emissions per unit of energy declined by an average 6.5% per year since 2020. This is a modest achievement, though. Only a few telcos have really put serious money behind an effort to shift to green energy.

Figure 1 shows the reliance on renewable energy for select telcos in our 32 company database.

Figure 1: Percentage of energy consumption from renewable sources, 2022, select telcos



Source: MTN Consulting

*Notes: (1) group average is included in the chart above, as the gray column, "Group of 32 total". (2) companies get credit for offsets.

Note that the figure above excludes telcos with renewable energy consumption rates of less than 1% in 2022: Charter, China's 3 telcos, Entel, KT, LG Uplus, Mobile Telesystems, and STC. Also note that many telcos have adjusted renewable energy and scope 2 emissions figures to account for renewable energy