

## Supply Change: Media Briefing

In recent years, tech giants such as Apple, Microsoft and Google have been quick to promote their climate initiatives and achievements. All three companies achieved 100% renewable energy across their own operations by 2018, outpacing their rivals.

However, both Microsoft and Google have failed to reduce their supply chain emissions, which comprise the majority of the electronics sector's carbon footprint. On average, 77% of electronics industry emissions are generated from the supply chain.<sup>1</sup> New research from Greenpeace East Asia and Stand.earth finds that suppliers to Apple, Microsoft and Google rely primarily on coal and fossil fuels.

"Supply Change" ranks the decarbonisation efforts of 10 of the world's top consumer electronics brands and 14 of their largest suppliers.<sup>2</sup> In 2021, the combined electricity consumption of all ranked companies exceeded 170,000 GWh, more than that of Argentina.<sup>3</sup>

### Key Findings

- **Suppliers to Microsoft, Google and other major consumer electronics brands rely heavily on fossil fuels.** Out of 14 suppliers to major consumer electronics brands, only four reported a renewable energy usage rate that exceeded 10%. In 2021, the median renewable energy usage rate for all 14 suppliers was 5%.
- **Nine out of 10 ranked consumer electronics brands, including Google, Microsoft and Amazon, have yet to set a 100% renewable energy target for their supply chain.** By contrast, all 10 consumer tech brands have committed to 100% renewable energy across their own operations, and three have already achieved this goal.
- **Microsoft is backsliding on supply chain emissions.** In 2020, Microsoft pledged to reduce its emissions, including its supply chain, by more than half within a decade. The following year, Microsoft's supply chain emissions increased by 23%.<sup>4</sup>
- **Apple is the only major tech company that has issued a 100% renewable energy target for its supply chain and has made significant progress toward this goal.** However, Apple has not disclosed detailed energy and emissions data for its supply chain.

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<sup>1</sup>World Economic Forum, & Boston Consulting Group. (2021). Net-Zero Challenge: The supply chain opportunity. Retrieved September 20, 2022, from <https://www.weforum.org/reports/net-zero-challenge-the-supply-chain-opportunity/>

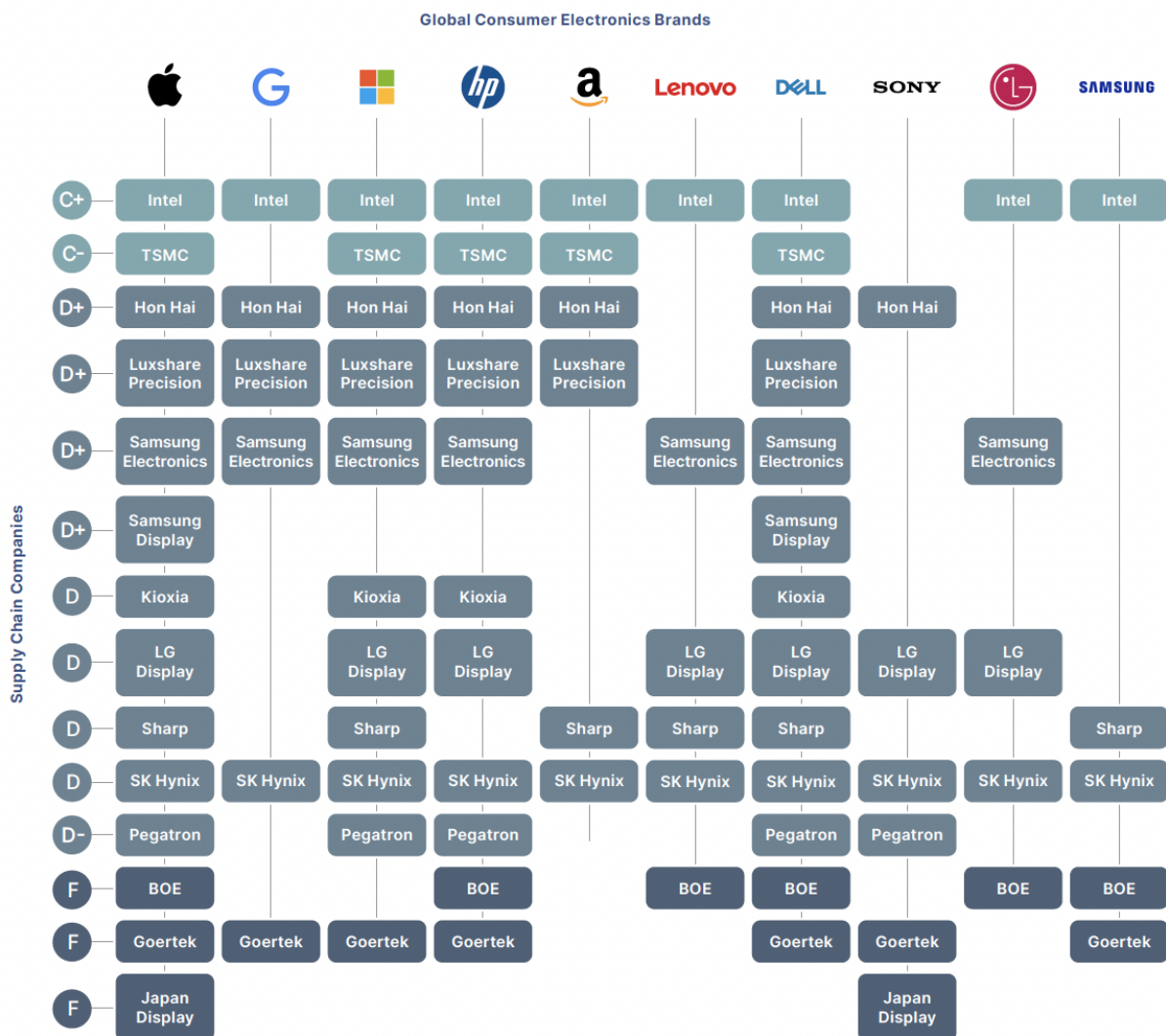
<sup>2</sup> Samsung Electronics is a major consumer electronics brand and semiconductor manufacturer. For this reason, it appears in both the consumer electronics brand category as well as the supplier category of the report.

<sup>3</sup> IEA. (2022). Electricity Information. Retrieved September 20, 2022, from <https://www.iea.org/countries/argentina>

<sup>4</sup> Smith, B. & Joppa, L. (2022). Official Microsoft blog published online March 10, 2022: 'An update on Microsoft's sustainability commitments: Building a foundation for 2030'. Retrieved September 14, 2022, from <https://blogs.microsoft.com/blog/2022/03/10/an-update-on-microsofts-sustainability-commitments-building-a-foundation-for-2030/>

- In 2021, TSMC and SK Hynix, two semiconductor manufacturing giants that supply Apple and Microsoft, reported renewable energy usage rates of only 9% and 4%, respectively. By contrast Apple and Microsoft have both achieved 100% renewable energy across their own operations.

- Emissions from semiconductor manufacturing are on the rise. Since 2019, emissions have increased from Samsung Electronics (26.1%), TSMC (17.5%), Intel (13.5%), and SK Hynix (11.7%), four of the world's top semiconductor manufacturers based on revenue. Collectively their clients include Apple, Microsoft and Google, among other brands.



Source: Bloomberg L.P. (2022) Supply Chain Analysis

## **Methodology**

Researchers tracked 10 leading consumer electronics brands and 14 of their tier one suppliers, including semiconductor manufacturers, display manufacturers and final assemblers.

This ranking is based on data from public sources, including corporate publications, news reports and third-party voluntary information disclosure platforms.

Companies were scored on the categories of climate commitments, climate action, environmental data transparency and advocacy. Detailed information about the methodology is available in the report.

## **Recommendations**

1. Consumer electronics brands must target 100% renewable energy across the supply chain by 2030 and design clear pathways for supply chain emissions reduction.
2. Consumer electronics brands should actively engage with suppliers on renewable energy procurement and emission reduction. Brands should provide financial support and incentives to their suppliers, engage meaningfully through training and reporting, and require key suppliers to set their own renewable energy and emissions reductions targets
3. Companies should choose high-impactful sourcing methods such as PPAs, renewable energy investment, and onsite generation. When companies set supply chain renewable energy targets, high-impact sourcing methods must be clearly specified.
4. Brands must achieve full supply chain transparency to ensure accountability, oversight and understanding of where energy is consumed across the supply chain.
5. Consumer electronics brands and suppliers must engage with policymakers and government institutions to develop renewable energy-friendly policies. Consumer electronic companies should work with policymakers to remove barriers to renewable energy procurement.