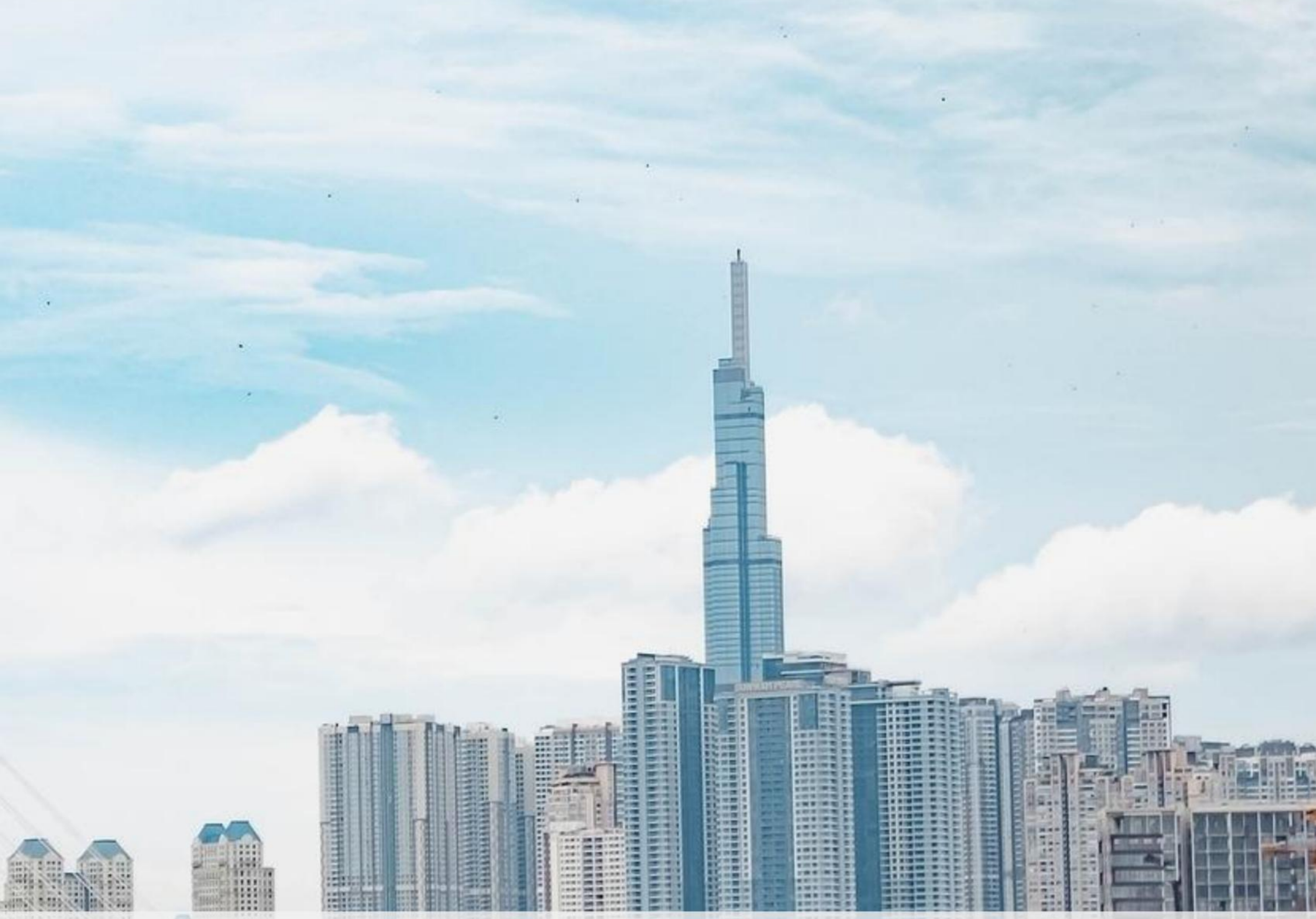
Energy Environment Climate VNEEC

VIETNAM HOLDING



CARBON FOOTPRINT AND CLIMATE RISK ASSESSMENT REPORT OF VIETNAM HOLDING'S INVESTMENT PORTFOLIO, 2023

Hanoi, August 2024

EXECUTIVE SUMMARY

Introduction & Policy Context

Since 2016, VNEEC has prepared VNH's annual portfolio carbon footprint assessment, extended since 2022 to include climate-related risk — making 2023 the second consecutive year VNH has modelled and disclosed climate risk, a pioneering step among Vietnamese funds. As of 31 December 2023, the portfolio comprised 25 enterprises; this assessment covers 24 companies representing 97.8% of NAV (excluding the SSIAM VNFIN Lead ETF holding). Vietnam pledged Net-zero by 2050 at COP26 and, in December 2022, secured a US$15.5bn Just Energy Transition Partnership. Decree 06/2022/ND-CP and Decision 01/2022/QD-TTg now require 1,912 facilities — including 5 VNH portfolio companies — to perform GHG inventories and reporting, positioning VNH's voluntary disclosure since 2016 ahead of the curve.

Portfolio Emissions — 2023 Results

14,522 **Scope 1 & 2 Emissions** *tCO_2e (vs 24,732 for VNAS benchmark)*	**-41.3%** **vs. VNAllShare Benchmark** *10,210 tCO_2e lower than benchmark*	**118.53** **Carbon Footprint** *tCO_2e / $M invested (benchmark: 201.86)*	**-29.3%** **vs. 2022 Portfolio** *down from 20,539 tCO_2e in 2022*

Total Scope 1 & 2 emissions were 41.3% lower than an equivalent VNAllShare (VNAS) investment, and lower still than VNH's own 2022 footprint of 20,539 tCO_2e. Including Scope 3, emissions were 38,843 tCO_2e vs a 51,588 tCO_2e benchmark — reflecting favourable sector allocation and reduced exposure to carbon-intensive Energy and Materials stocks.

Sector Impacts

- **Materials** is far the most emission-intensive sector (41% of emissions from just 2.6% of capital).
- **Industrials** contributes 19.7% of emissions vs 11.7% of investment; Consumer Staples and Energy each add 13–14%.
- **Financials** is VNH's largest allocation (34.6% of NAV) yet only 1.5% of emissions — as with Consumer Discretionary, Real Estate and IT. No exposure to Health Care, Utilities or Communication Services.

Data Disclosure

Disclosure is improving but remains low overall. By company count, 25% of VNH holdings disclosed emissions in 2023 (vs 14% for the benchmark), 25% were estimated, 50% approximated. Weighted by capital, 34% of NAV sat in disclosing companies, ahead of the benchmark's 10%.

Transition Risk Assessment

Using the UNEP FI TCFD framework, 47.5% of VNH's NAV sits in “Low” transition-risk sectors (chiefly Financials and IT), 40.3% “Moderate”, and 4.4% “High.” Oil & Gas is the only “High”-rated sector, but VNH's sole holding, PetroVietnam Technical Service (PVS), is a services company — one of the least exposed names in that sector. VNH's 2023 portfolio is slightly less exposed than in 2022, consistent with the carbon footprint results.

Implied Temperature Rise & WACI

VNH's emissions imply 3.85°C (domestic pathway) or 2.80°C (effort-sharing pathway) — not yet aligned with 2°C, though better than most regional benchmarks (e.g. EM Asia-Pacific 3.3°C, EM EMEA 3.5°C). Weighted Average Carbon Intensity improved to 107.98 tCO_2e/$M (from 178.23 in 2022, consistent with VNH's Annual Report 2024) — well below MSCI ACWI (166) but still above the MSCI Low Carbon Leaders (84) and Climate Paris Aligned (41) indices.

Conclusion & Recommendations

Emissions, transition-risk exposure and carbon intensity all improved in 2023 vs 2022 and benchmark, mainly from reduced allocation to Energy and Materials. VNEEC recommends VNH (i) conduct sub-sector, peer-to-peer analysis before investment decisions for ex-ante screening, and (ii) favour companies with credible net-zero commitments or reduction potential, such as renewable energy and forestry, to progress toward the 2°C target.