## Residual $CO_2$ emissions (scope 1 and 3) of breakthrough technologies and proposed IEA near-zero emission threshold for primary steel

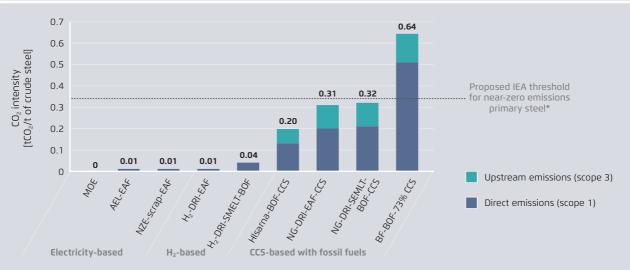


Figure 5

Agora Industry and Wuppertal Institute (2024), based on own analysis and IEA (2022). Note: All primary steel production technologies in this figure have been calculated with a share of 17% scrap. \*Due to scrap share adjustment the IEA threshold for near-zero emissions primary steel is around 0.34 tCO<sub>z</sub>/t of crude steel. Upstream emissions for CCS technologies are retrieved from IEA (2022) based on 2050 values for *indirect emissions of fossil fuels*. They assume already large cuts of methane emissions relative to today. Indirect emissions (scope 2) are assumed to be zero if only zero-carbon electricity is used.