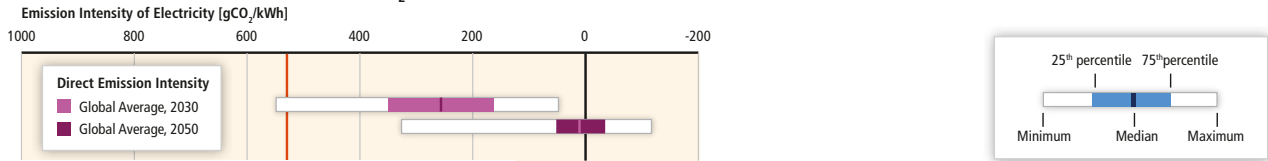
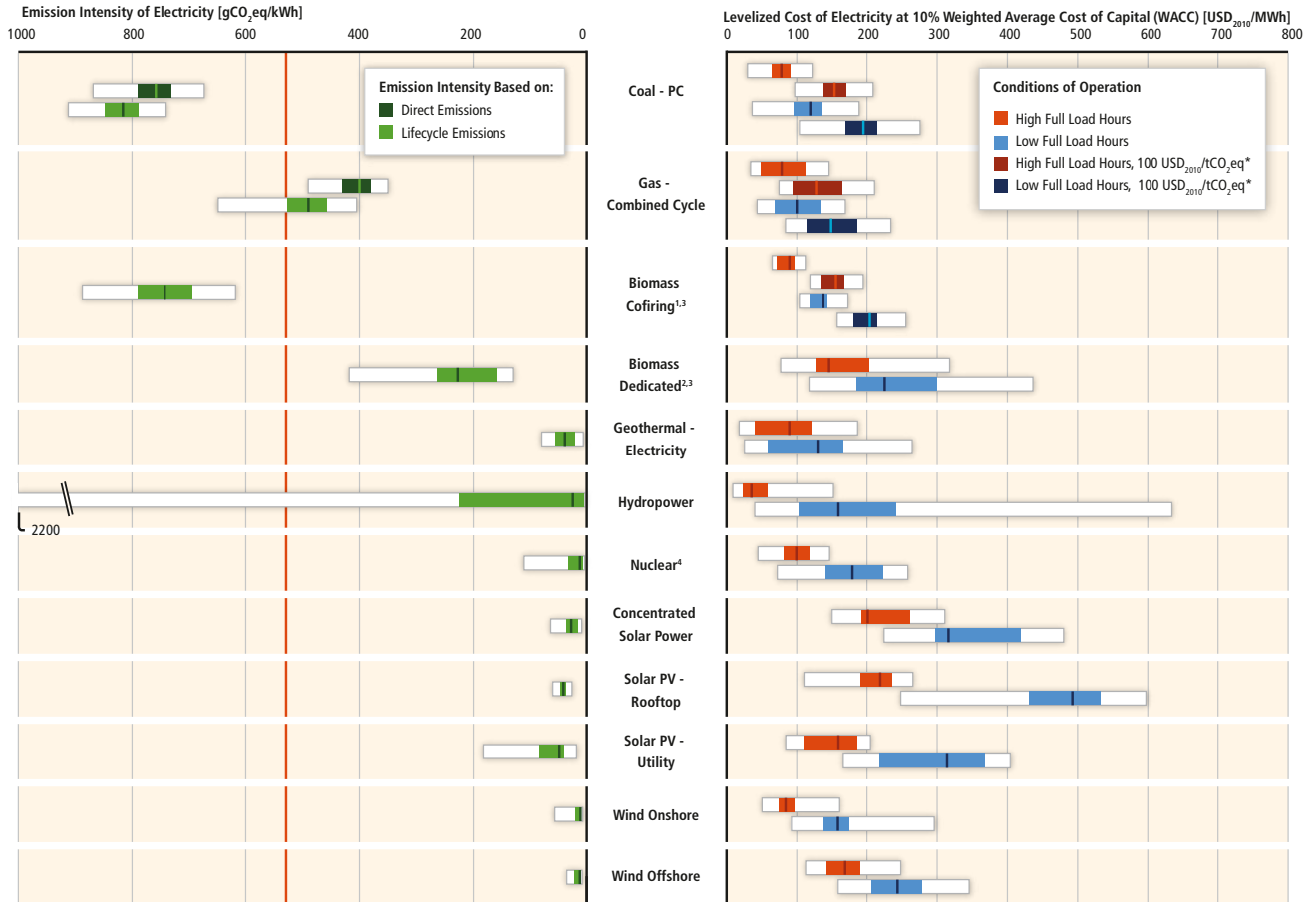


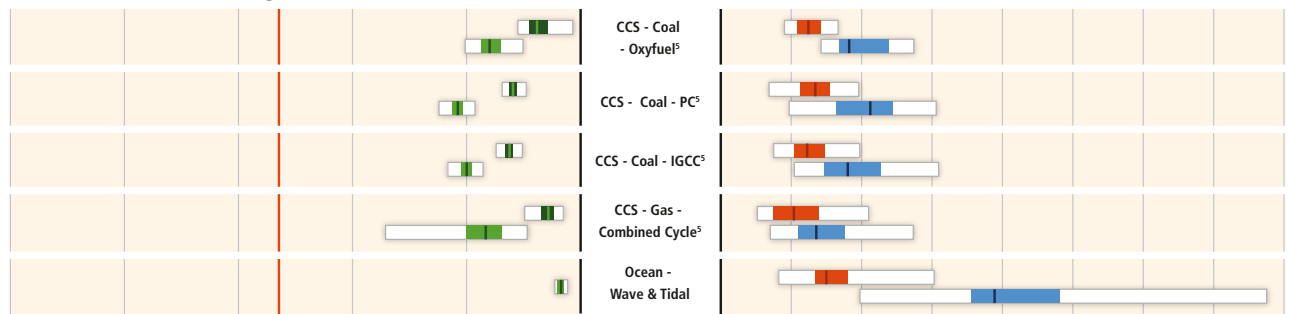
Scenarios Reaching 430-530 ppm CO₂eq in 2100 in Integrated Models



Currently Commercially Available Technologies



Pre-commercial Technologies



Global Average Direct Emission Intensity, 2010

¹ Assuming biomass feedstocks are dedicated energy plants and crop residues and 80-95% coal input.
² Assuming feedstocks are dedicated energy plants and crop residues.
³ Direct emissions of biomass power plants are not shown explicitly, but included in the lifecycle emissions. Lifecycle emissions include albedo effect.
⁴ LCOE of nuclear include front and back-end fuel costs as well as decommissioning costs.
⁵ Transport and storage costs of CCS are set to 10 USD₂₀₁₀/tCO₂.
 * Carbon price levied on direct emissions. Effects shown where significant.

Figure TS.19 Specific direct and lifecycle emissions (gCO₂eq/ kilowatt hour (kWh)) and levelized cost of electricity (LCOE in USD₂₀₁₀/MWh) for various power-generating technologies (see Annex III.2 for data and assumptions and Annex II.3.1 and II.9.3 for methodological issues). The upper left graph shows global averages of specific direct CO₂ emissions (gCO₂/kWh) of power generation in 2030 and 2050 for the set of about 450 to about 500 (430–530) ppm CO₂eq scenarios that are contained in the WG III AR5 Scenario Database (see Annex II.10). The global average of specific direct CO₂ emissions (gCO₂/kWh) of power generation in 2010 is shown as a vertical line. Note: The inter-comparability of LCOE is limited. For details on general methodological issues and interpretation see Annexes as mentioned above. CCS: CO₂ capture and storage; IGCC: Integrated coal gasification combined cycle; PC: Pulverized hard coal; PV: Photovoltaic; WACC: Weighted average cost of capital. [Figure 7.7]