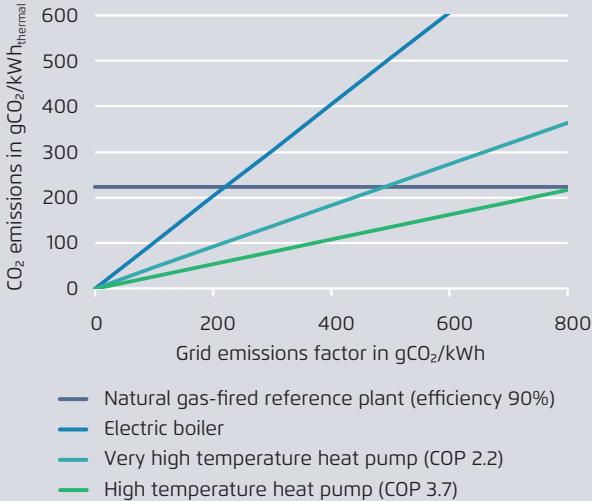


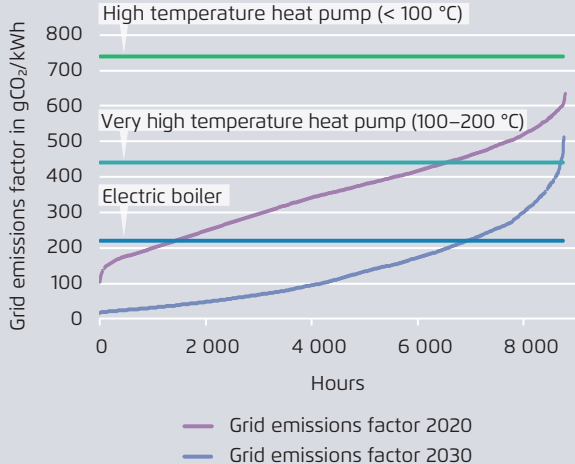
# CO<sub>2</sub> emissions of electricity-based technology options in the context of emissions from the electricity system

Figure 9

a) CO<sub>2</sub> emissions of electricity-based technology options compared to a natural gas-fired steam boiler



b) Grid emissions factors for 2020 and 2030 and thresholds below which operation is ecologically beneficial



The grid emissions factors for 2020 are historical values taken from the Agorameter (Agora Energiewende 2022a); the grid emissions factors for 2030 correspond to an electricity system that is 80 percent based on renewable energy (Agora Energiewende, Prognos, Consentec 2022).