

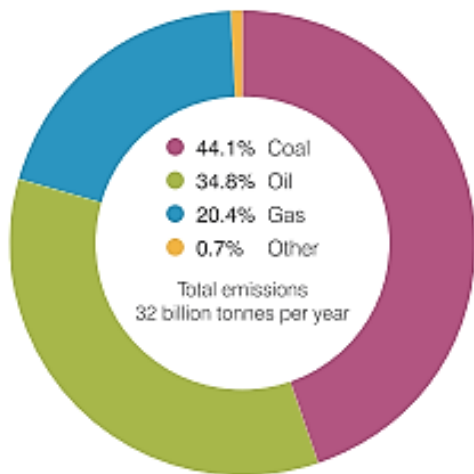


## FACTSHEET: Nuclear Power and Climate Change

Electricity from nuclear power plants generates significantly lower emissions of carbon dioxide (CO<sub>2</sub>) compared with fossil fuel plants. A study by the International Atomic Energy Agency (IAEA) puts greenhouse gas emissions from nuclear generation at between 9 and 21 tonnes CO<sub>2</sub>-equivalent per GWh of electricity produced. This compares with between 385 and 1343 tonnes for fossil fuel and between 9 and 279 tonnes for renewable energy sources.

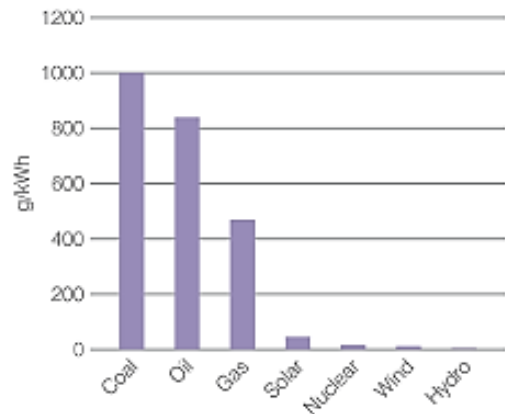
Nuclear power accounted for about 10 % of global electricity production in 2022. The current use of nuclear energy avoids the emission of about 2.1 billion tonnes of CO<sub>2</sub>-equivalent every year. According to the International Energy Agency (IEA), nuclear energy has avoided emission of some 56 gigatonnes of CO<sub>2</sub>, the equivalent of two years' global emissions at today's rate. It is estimated that, at current nuclear usage and CO<sub>2</sub> emission levels, almost four years' worth of CO<sub>2</sub> emissions will be avoided by 2040. The IEA predicts that global electricity demand will increase by between 80% and 130% by 2050. Studies show that significant reductions in carbon emissions, while also meeting this growing demand, cannot happen without nuclear as a major component of the energy mix. At least 80% of the world's electricity must be low-carbon by 2050 if the world is to keep global warming within 2°C, according to the Intergovernmental Panel on Climate Change (IPCC).

Global CO<sub>2</sub> emissions (2016)



Source: IEA

Emissions intensity by energy source



Source: IPCC

Please refer to the disclaimer on our website

Source: WNA

*Sustaining Global Best Practice in Uranium Exploration, Mining and Processing in Namibia and Promoting the Namibian Uranium Brand*