Nuclear power is the use of nuclear reactions to produce electricity.
Nuclear power can be obtained from nuclear fission, nuclear decay and nuclear fusion reactions.
Presently, the vast majority of electricity from nuclear power is produced by
nuclear fission of uranium and plutonium in nuclear power plants.
Nuclear decay processes are used in niche applications
such as radioisotope thermoelectric generators in some space probes such as Voyager 2.
Generating electricity from fusion power remains the focus of international research.
Civilian nuclear power supplied 2,586 terawatt hours (TWh) of electricity in 2019,
equivalent to about 10% of global electricity generation,
and was the second-largest low-carbon power source after hydroelectricity.
As of January 2021, there are 442 civilian fission reactors in the world,
with a combined electrical capacity of 392 gigawatt (GW).
There are also 53 nuclear power reactors under construction and 98 reactors planned,
with a combined capacity of 60 GW and 103 GW, respectively.
The United States has the largest fleet of nuclear reactors, generating over 800 TWh
zero-emissions electricity per year with an average capacity factor of 92%.
Most reactors under construction are generation III reactors in Asia.