

1. What nuclear process is involved in 100% of all nuclear power plants?
Presently fission is the only process being used in commercial nuclear powerplants.
2. What is the basic process by which nuclear fission can be used to generate electrical power?
Nuclear fission releases heat that is used to boil water that creates steam to drive a turbine connected to an electric generator.
3. What are some problems associated with nuclear fission in power plants?
 - It generates radioactive waste and leaves the structure radioactive so it needs to be decommissioned.
 - There is no safe method to store or dispose of the radioactive waste
 - There is a danger of melt-down if the system gets too hot
 - There is a chance of leakage of radioactivity.

We will watch the video “Fusion Energy Explained,” <https://youtu.be/N4yWhA1mVxA>

4. Why is fusion power not currently used to generate electrical power?
Fusion requires incredibly high temperatures, which is both difficult to contain and difficult to attain and get more energy out than is put in.
5. How is the plasma, at a temperature of millions of degrees, contained?
Two magnetic fields confine the plasma to a donut-shaped torus.
6. What are some benefits of fusion as an energy source?
It has an inexpensive, nearly infinite fuel source (H from H₂O), it is extremely efficient, it generates no high-level radioactive wastes.