Zaporizhzhia nuclear power plant

March 7, 2022

In news- Russia captured Ukraine's Zaporizhzhia Nuclear Power plant, largest nuclear power plant in Europe recently.

About Zaporizhzhia nuclear power plant-

- **Zaporizhzhia is a city in south-eastern Ukraine, situated on the banks of the Dnieper river.**

- The plant is **located in the steppe zone of Ukraine, on the bank of the Kakhovka water reservoir.**
- It is also 550 km south-east of the Ukrainian capital of Kyiv.
- The strategically important city is known for its island of Khortytsia and Dnieper Hydroelectric Station.

- **This plant is one of the four nuclear power plants in Ukraine and also the largest nuclear power plant in Europe.**

- It produces one-fifth of the country's electricity and contributes half of the country's nuclear power generation.
- **It has six reactors, each with a power capacity of 950MW,** making the total capacity of the plant 5,700MW, enough to power four million households.

- **The construction for the first reactor of the plant began in 1979, when Ukraine was a part of the USSR.**
- The first reactor of the plant was connected to the power grid in 1984 and the last one in 1995.
- **All the reactors in the plant are VVVER-1000 or Pressurised Water Reactors (PWR)**, originally designed in the Soviet Union.
- **The reactors in the have a two-circuit design. This means that the nuclear-contaminated steam does not generate the final energy,** but is used to power another circuit with non-contaminated steam, which in turn makes the turbines run.
- Experts have pointed out that these reactors also have a back-up cooling system for emergencies.