



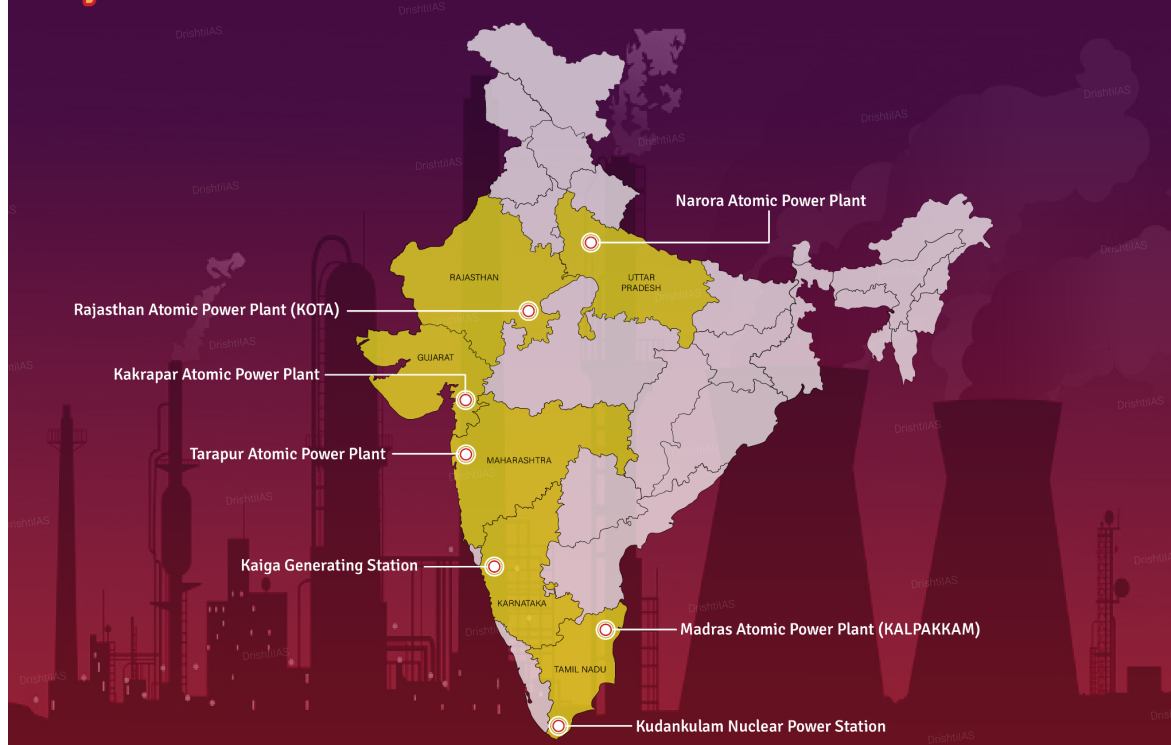
Operational License for Indigenous 700 MWe PHWRs

[Source: TH](#)

The [Atomic Energy Regulatory Board \(AERB\)](#) granted an **operation licence** for two **indigenously developed** (KAPS-3 and KAPS-4) **700 MWe (Megawatts electric) Pressurised Heavy Water Reactors (PHWRs)** at the [Kakrapar Atomic Power Station \(KAPS\)](#) in Gujarat.

- **AERB**, after **15 years** of rigorous multi-tiered safety reviews, granted a **5-year Licence for Operation** to the [Nuclear Power Corporation of India Limited \(NPCIL\)](#).
 - This marks a significant boost to NPCIL's plan of building **10 more PHWRs of 700 MWe**.
 - **NPCIL** owns and operates all **nuclear power plants** in India, except **PFBR variants** (owned by The Indira Gandhi Centre for Atomic Research).
- India currently operates **15 PHWRs of 220 MWe**, **2 PHWRs of 540 MWe**, and a **700 MWe reactor at Rawatbhata, Rajasthan**.
- **PHWRs** are a type of **nuclear reactor** that use **heavy water (deuterium oxide, D₂O)** as **both a coolant and moderator**, while **natural or slightly enriched uranium** serves as **fuel**.
- **AERB** is **India's national regulatory authority** responsible for ensuring the **safe use of nuclear energy and radiation technologies** in the country.
 - Established in **1983** under the [Atomic Energy Act, 1962](#), AERB functions as an **independent body** under the **Department of Atomic Energy (DAE)**.
- India's **nuclear power capacity** is currently **8.18 GW (2024)**, with targets set at **22.48 GW by 2031-32** and **100 GW by 2047**.

Operational Nuclear Power Plants in India



FACTS

- Presently, India has 22 nuclear power reactors operating in 6 states, with an installed capacity of 6780 MegaWatt electric (MWe).
- Activities concerning the establishment and utilization of nuclear facilities and use of radioactive sources are carried out in India in accordance with the Atomic Energy Act, 1962.
- Atomic Energy Regulatory Board (AERB) regulates nuclear & radiation facilities and activities.
- Newest & Largest Nuclear Power Plant: Kudankulam Power Plant, Tamil Nadu.
- First & Oldest Nuclear Power Plant: Tarapur Power Plant, Maharashtra.



Read More: [India's Nuclear Programme](https://www.drishtiias.com/printpdf/operational-license-for-indigenous-700-mwe-phwrs)

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