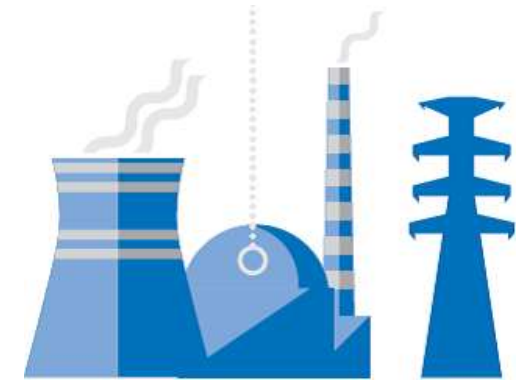
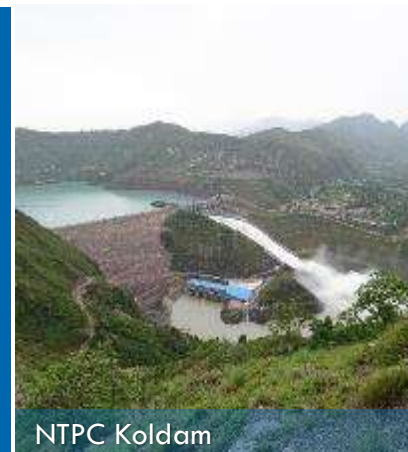




SHANTI Act as Enabler for 100 GW Nuclear Roadmap

**Making Technology
Available**



NTPC Koldam



NTPC Kayamkulam



NTPC Rojmal

Follow us on:



- ❖ Inclination towards Nuclear Energy
- ❖ NTPC Pursuing Energy Transition
- ❖ Support for PHWR – **Enhancing Technology Availability**
- ❖ Support for Foreign Technology - **Decoupling of Technology**
- ❖ Streamlining Collaboration process



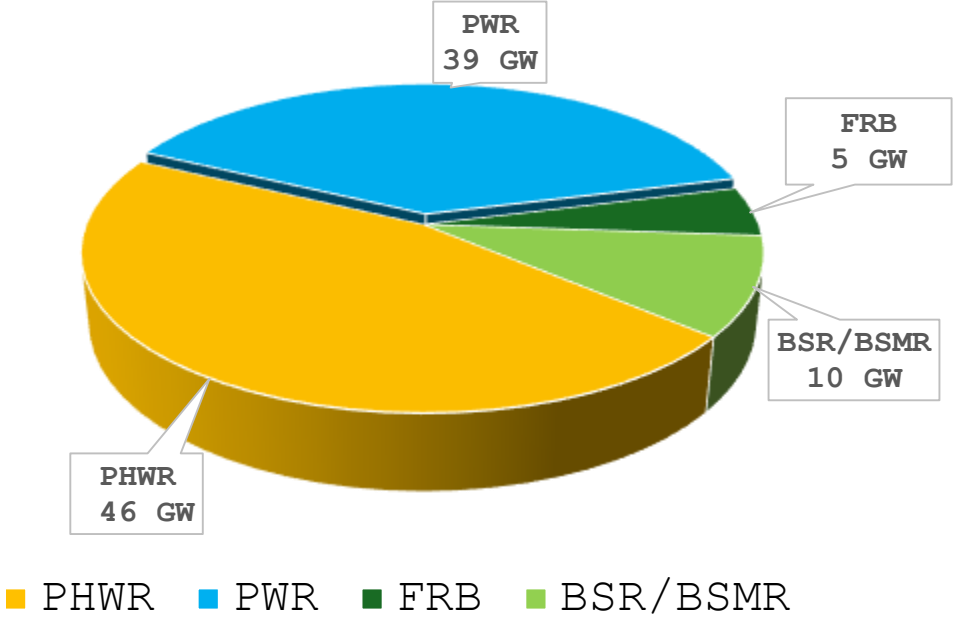
National inclination towards Nuclear Energy

BUDGET 2025-26

Promotion of Nuclear

-  Nuclear Capacity target 100 GW by 2047
-  Nuclear Energy Mission for SMR
-  5 Indigenous SMRs operational by 2033
-  Outlay of 20,000 crore
-  Policies SHANTI Act facilitating wider participation

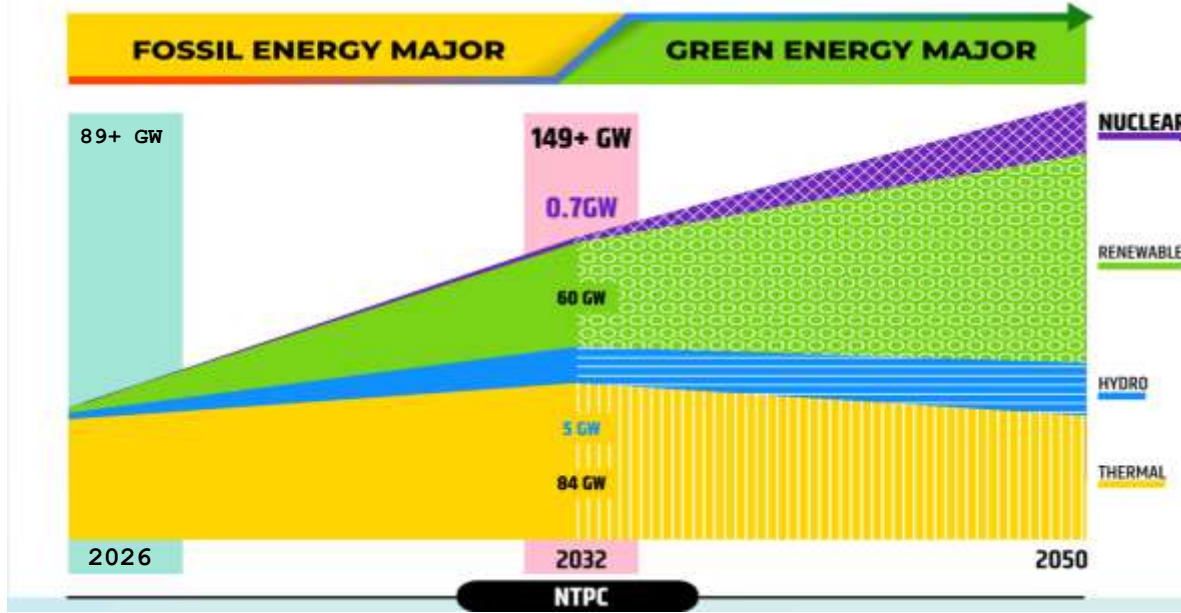
✓ Committee by Gol released report on “100 GW Nuclear Roadmap” in Oct’2025



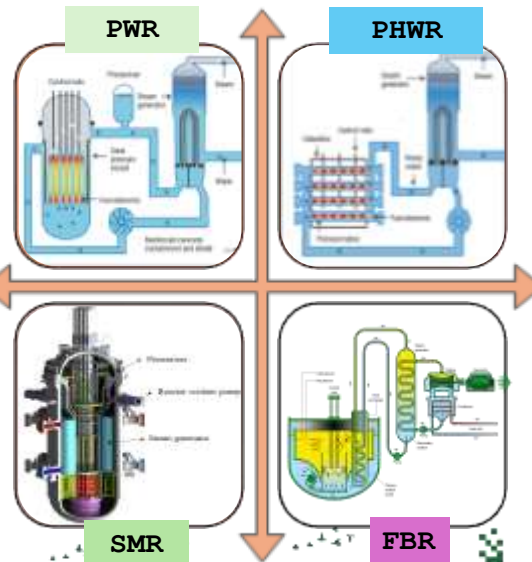
SHANTI Act transforms nuclear power from a closed, state-only program into a scalable, regulated, globally integrated infrastructure sector, while keeping strategic control with the Government of India.



NTPC Pursuing Energy Transition



Aiming
30 GW
Nuclear Capacity
By 2047
Inline with GoI's
100 GW
Nuclear Roadmap



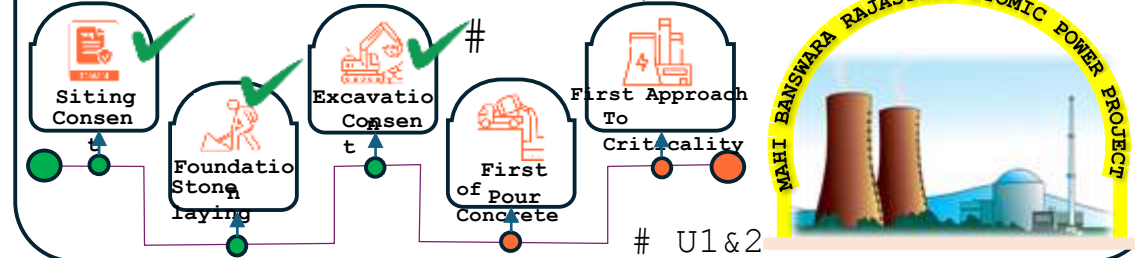
ANUSHAKTI VIDHYUT NIGAM LIMITED (ASHVINI)



A joint venture



MAHI BANSWARA RAJASTHAN ATOMIC POWER PROJECT (4 X 700 MW)



NTPC PARMANU URJA NIGAM LIMITED (NPUNL)



A Wholly Owned Subsidiary

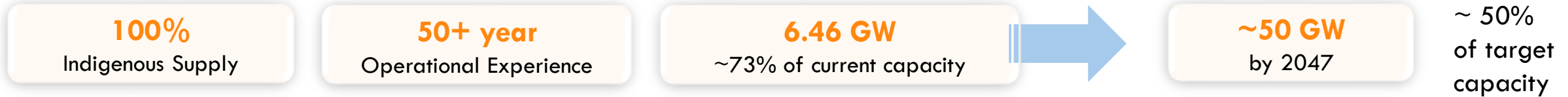


Application submitted to DAE to authorize Build, Own & Operate NPP

Design & Engineering Support for PHWR



- ❖ PHWRs are the primary focus of the 100 GW target, and NPCIL is the sole repository of PHWR expertise

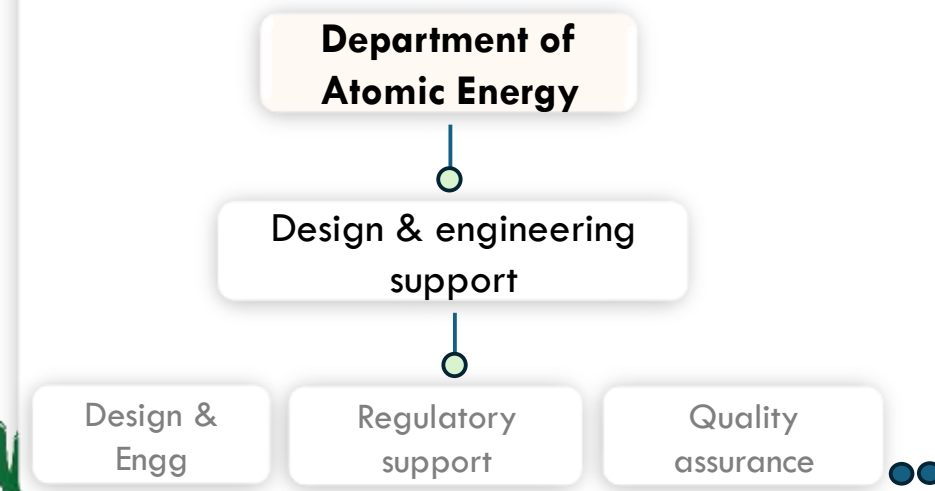


- ❖ Delivery requires a coordinated, multi-stakeholder ecosystem while ensuring safe & reliable operation
- ❖ Established technology meeting all regulatory requirements.
- ❖ **To enable scale-up and bridge design and engineering capability gaps, Design & Engineering Support will be Required**

Key Benefits



Proposed Agency Structure



Current practice

Requires technology finalization before Siting stage - basic initial inputs such as Plant layout and Radiological Study

Proposal

Siting Consent be made independent of technology, using a comprehensive inputs encompassing requirements of potential technologies

Merits of the proposed technology agnostic siting

- ❖ Reduces overall project timelines by enabling early site identification and regulatory approval independent of technology
- ❖ Provides flexibility in technology deployment, allowing different reactor types to be considered and implemented at the same approved site as requirements evolve
- ❖ Enables optimized planning of common infrastructure such as grid connectivity, water systems, and site access well in advance of technology finalization

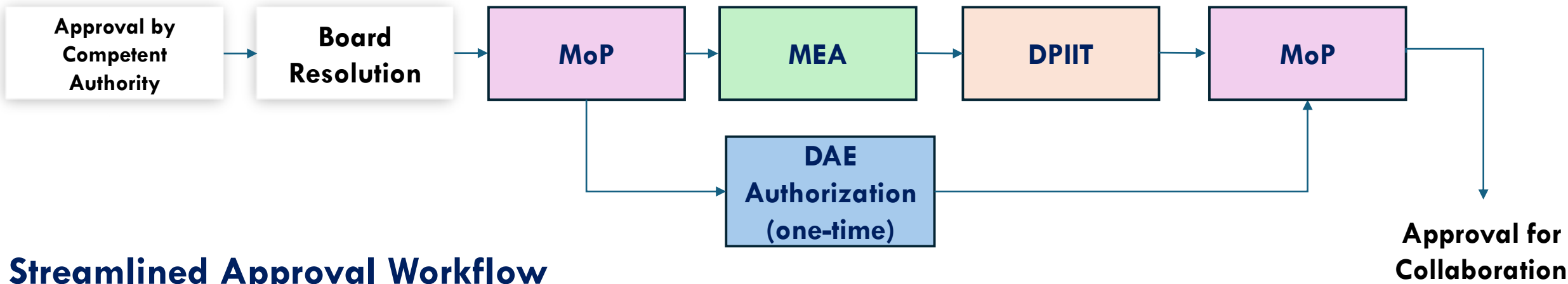


Streamlining NDAs, MoUs & foreign Engagement

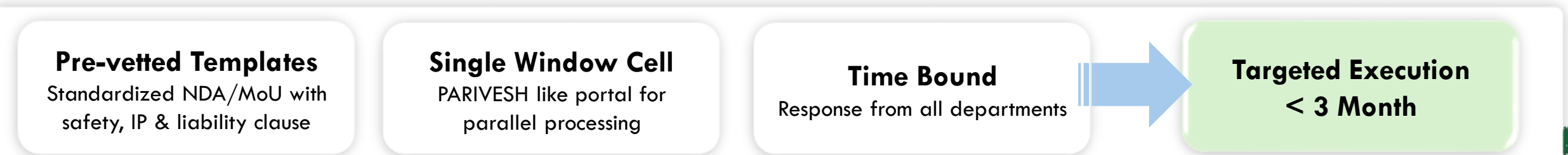
Possible modes of collaboration



Present Process followed for Approval to Collaborate on Technology



Streamlined Approval Workflow



Need for **promotion of nuclear energy** to meet 100 GW capacity target by 2047 & Net Zero by 2070

PHWR, the Workhorse for Indian nuclear programme – need **Design & Engineering Support**

New technology adoption requires **Utility & Site agnostic** Siting to enable faster implementation & enhance economic viability

Time - bound approvals are essential for collaboration in technology





Thank You

