

Challenges and Prospects of Restart and Advanced Reactors in Japan

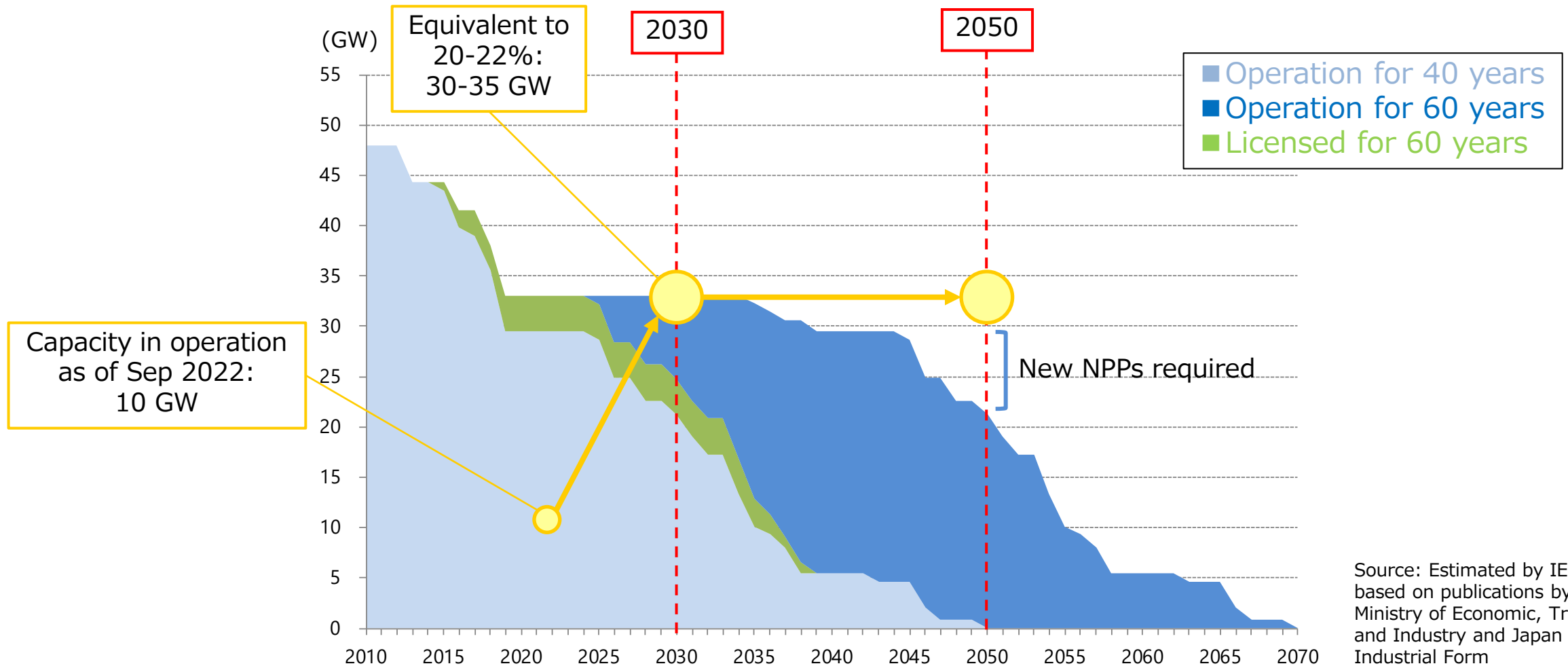
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Nuclear Power Plants in Japan: Long-term operation is the key as well as restart

- Existing reactors: 33 units (Restarted: 10 units, Expected to restart after next summer: 7 units)
- 30 GW would be necessary to achieve 20-22% in 2030. Lifetime extension to 60 years is crucial, and new reactors are also necessary to keep the same capacity level in 2050.

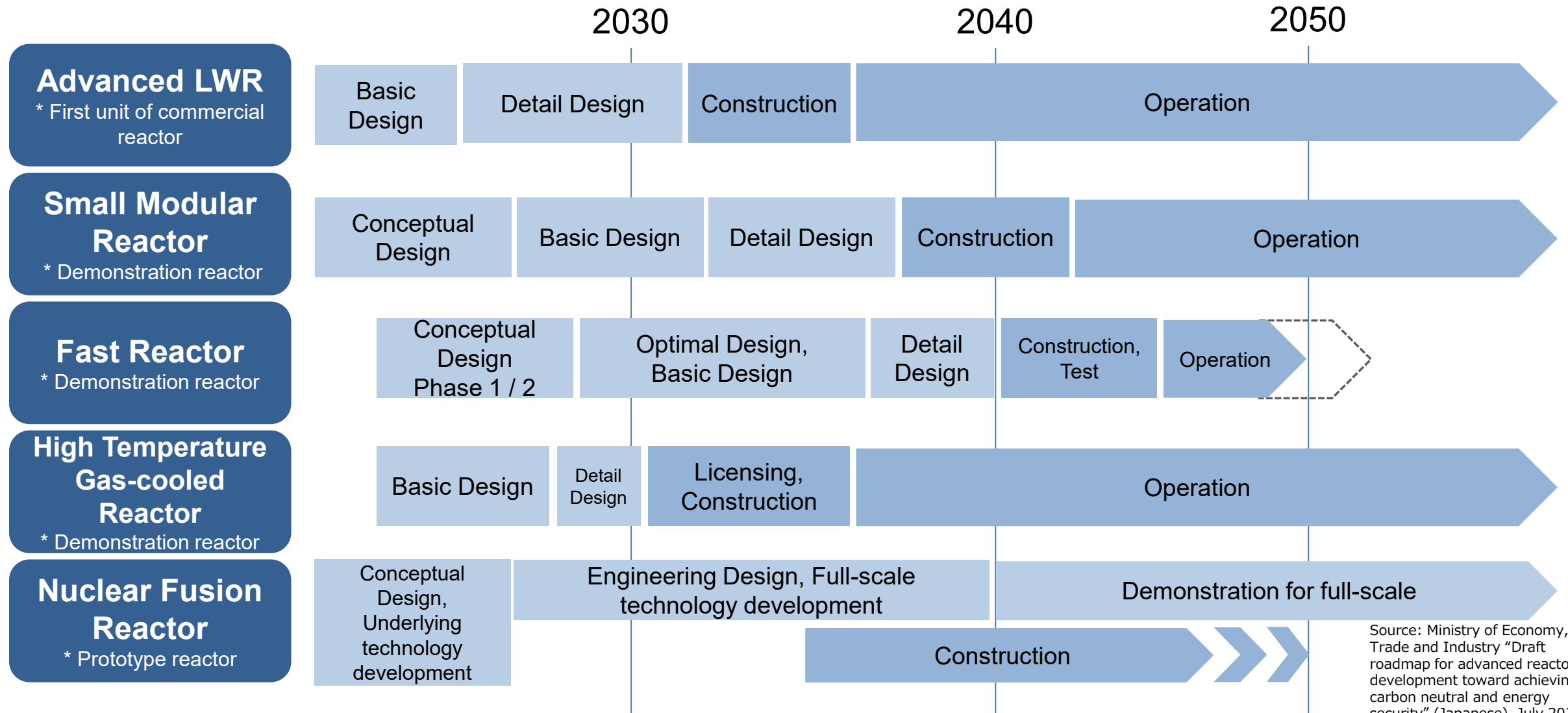


Source: Estimated by IEEJ based on publications by Ministry of Economic, Trade and Industry and Japan Atomic Industrial Form

Roadmap for Advanced Reactor Development (Draft outline, July 2022)

- Construction and Operation in Japan

- Identified the timeline and milestones toward 2050 based on technology readiness, corresponding regulations, supply chain, marketability, and non-energy utilization.



Source: Ministry of Economy, Trade and Industry "Draft roadmap for advanced reactor development toward achieving carbon neutral and energy security" (Japanese), July 2022