

Nuclear Power Status 2025

In operation

377 GW(e) total net capacity

413 reactors

2 635.2 TWh electricity produced

In suspended operation

19.7 GW(e) total net capacity

23 reactors

Under construction

76.9 GW(e) total net capacity

72 reactors



Power Reactor Information System
PRIS

Status changes

Construction starts

BAILONG-1	1160 MW(e), PWR, CHINA	JINQIMEN-1	1145 MW(e), PWR, CHINA	LUFENG-1	1250 MW(e), PWR, CHINA	LUFENG-2	1250 MW(e), PWR, CHINA
NINGDE-6	1117 MW(e), PWR, CHINA	SANAO-3	1208 MW(e), PWR, CHINA	SHIDAOWAN-2	1134 MW(e), PWR, CHINA	TAIPINGLING-3	1209 MW(e), PWR, CHINA
ZHAOYUAN-1	1117 MW(e), PWR, CHINA	SHIN-HANUL-3	1340 MW(e), PWR, REPUBLIC OF KOREA	KURSK 2-3	1200 MW(e), PWR, RUSSIAN FEDERATION	LENINGRAD 2-4	1150 MW(e), PWR, RUSSIAN FEDERATION

New connections to the grid

ZHANGZHOU-2	1126 MW(e), PWR, CHINA	RAJASTHAN-7	630 MW(e), PWHR, INDIA	KURSK 2-1	1200 MW(e), PWR, RUSSIA FEDERATION
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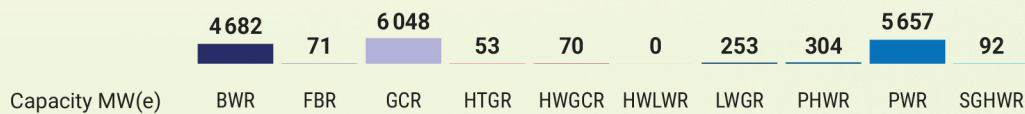
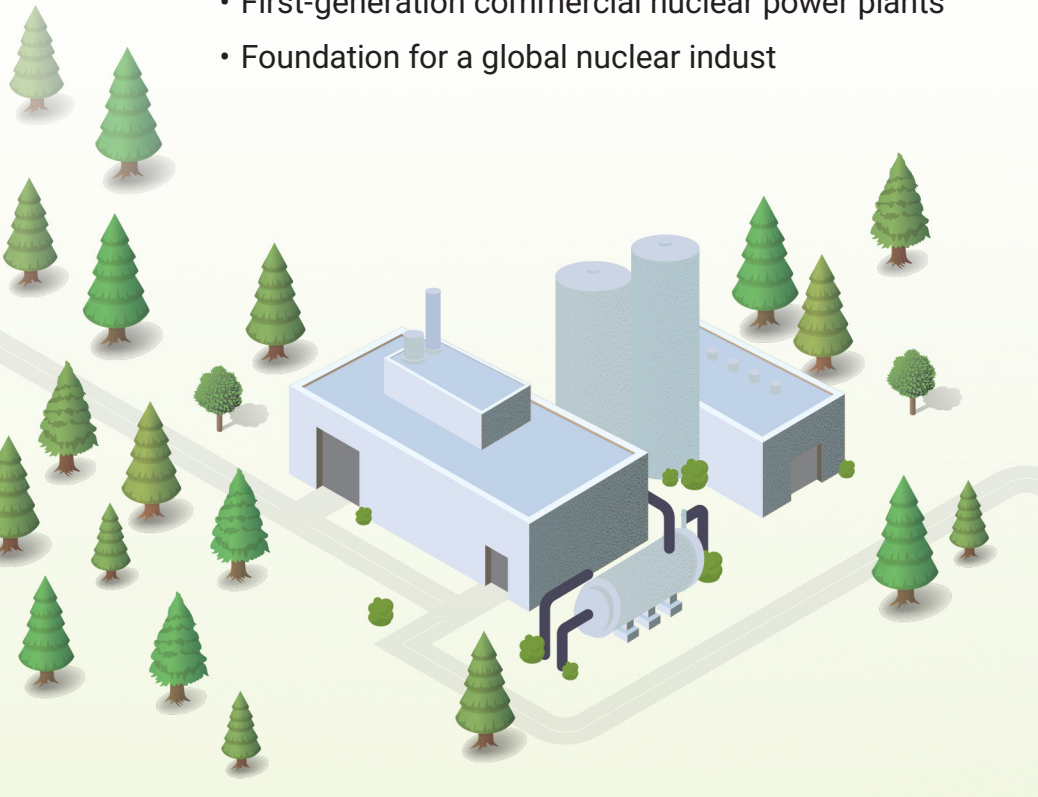
Permanent shutdowns

DOEL-1	445 MW(e), PWR, BELGIUM	DOEL-2	445 MW(e), PWR, BELGIUM	TIHANGE-1	962 MW(e), PWR, BELGIUM	BILIBINO-2	11 MW(e), LWGR, RUSSIAN FEDERATION
BILIBINO-3	11 MW(e), LWGR, RUSSIAN FEDERATION	BILIBINO-4	11 MW(e), LWGR, RUSSIAN FEDERATION	MAANSHAN-2	938 MW(e), PWR, TAIWAN, CHINA		

A visual journey of reactor technology

Demonstration and commercialization

- Establishment of nuclear regulatory frameworks
- Proof of technology and adoption of early prototype reactors
- First-generation commercial nuclear power plants
- Foundation for a global nuclear indust

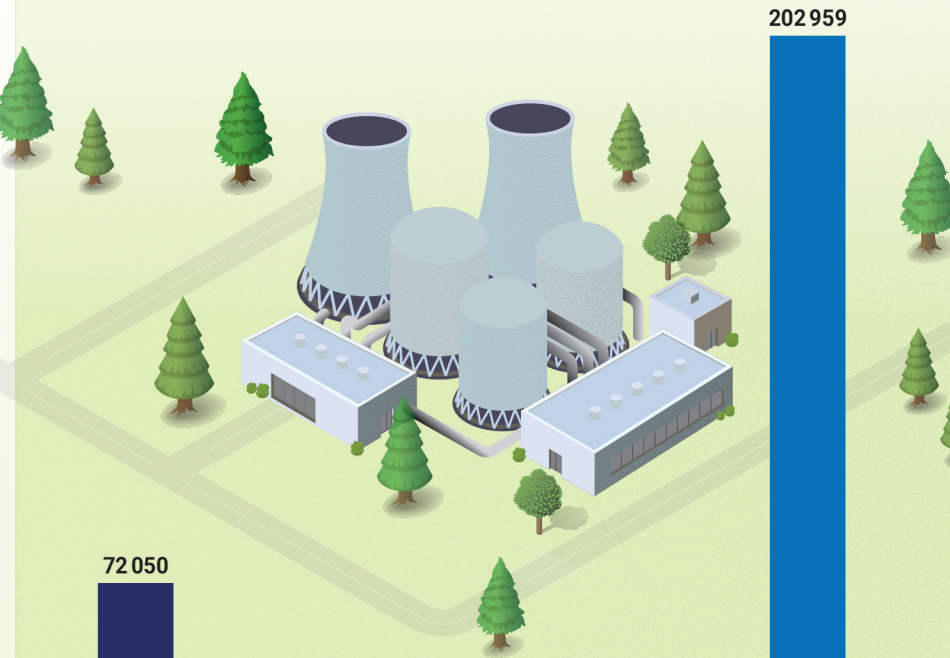


Pre-1970 era

Regional capacities	Total	17 230
	Europe – Northern Western and Southern	8 274
	America – Northern	6 576
	Asia – Central and Eastern	1 294
	Europe – Eastern	786
	Asia – Southern	300

Global expansion

- Rapid global expansion and fleet deployment
- Nuclear power as a major source of electricity in many industrialized countries
- Established technologies remain the backbone of today's nuclear industry
- Safety improvement through lessons learned from accidents

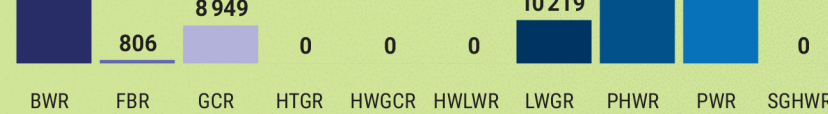
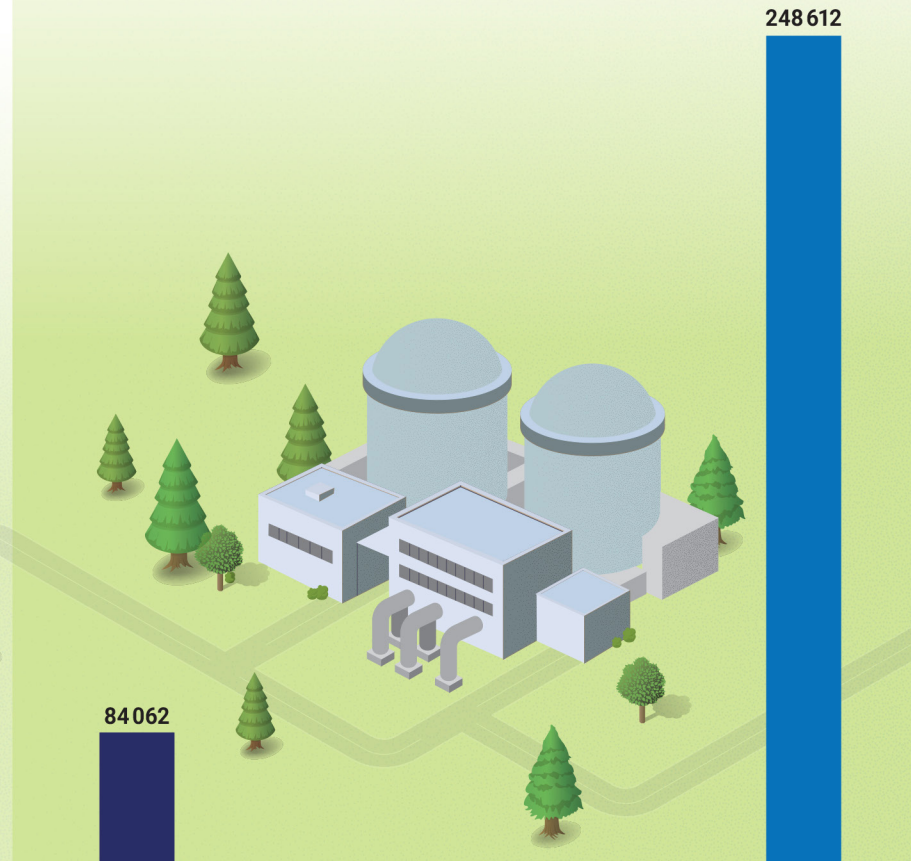


1970–1990

Total	322 156
Europe – Northern Western and Southern	119 986
America – Northern	113 828
Asia – Central and Eastern	42 967
Europe – Eastern	39 477
America – Latin	2 201
Africa	1 840
Asia – Southern	1 441
Asia – Western	416

Maturation and standardization

- Shift from expansion to safety, plant modernization and long-tem operation
- Significant improvements in reliability and operational performance
- Development of advanced reactor designs incorporate lessons learned and enhanced safety features

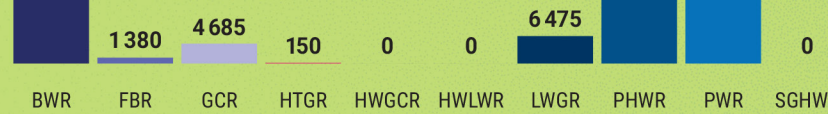


1990–2010

Total	377 200
Europe – Northern Western and Southern	123 602
America – Northern	115 448
Asia – Central and Eastern	80 812
Europe – Eastern	46 386
Asia – Southern	4 658
America – Latin	4 119
Africa	1 800
Asia – Western	375

Innovation and advanced designs

- Post-Fukushima safety reinforcement
- Renewed interest in nuclear power and advanced reactor technologies, with SMRs move towards demonstration
- Expansion of reactor designs and suppliers
- Increased emphasis on long-term operation and climate change mitigation

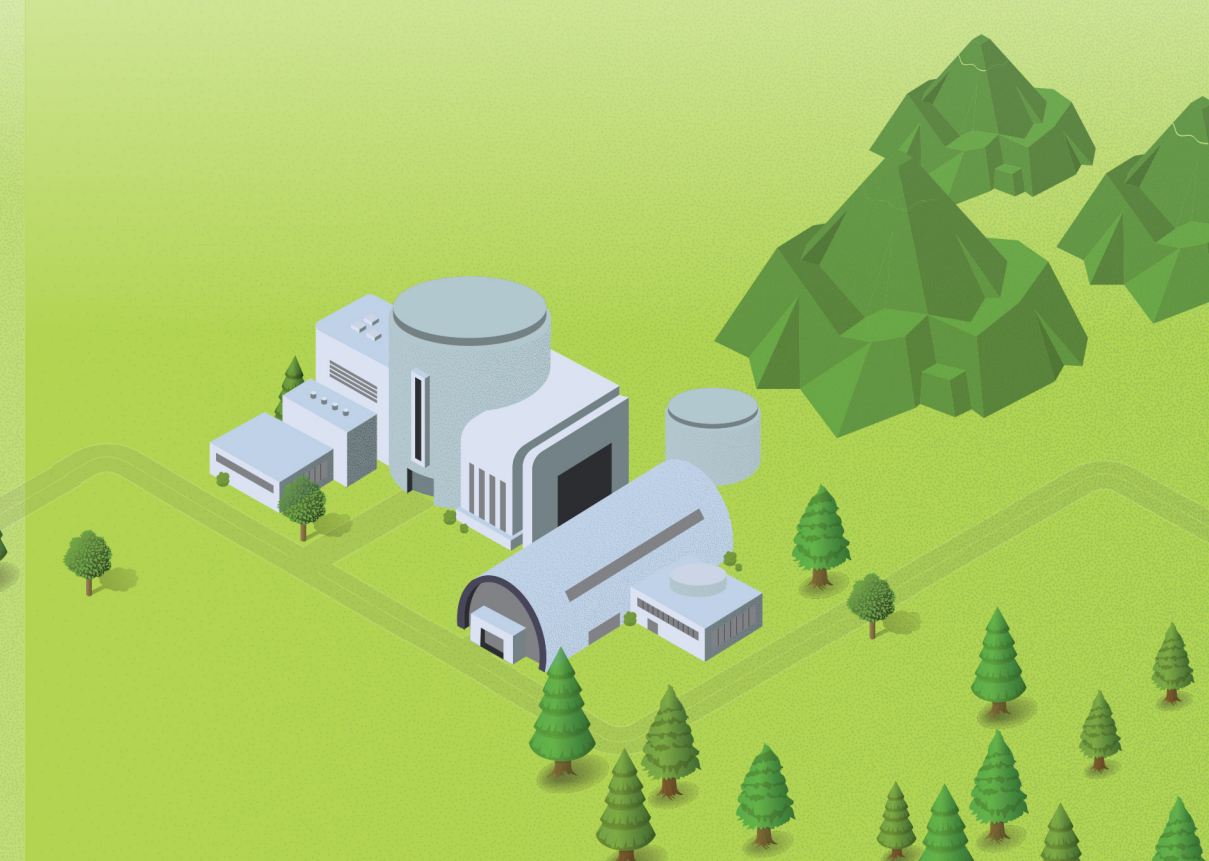


2010–2025

Total	396 763
Asia – Central and Eastern	113 776
America – Northern	109 666
Europe – Northern Western and Southern	93 594
Europe – Eastern	54 796
Asia – Southern	11 331
Asia – Western	6 679
America – Latin	5 067
Africa	1 854

Energizing the future

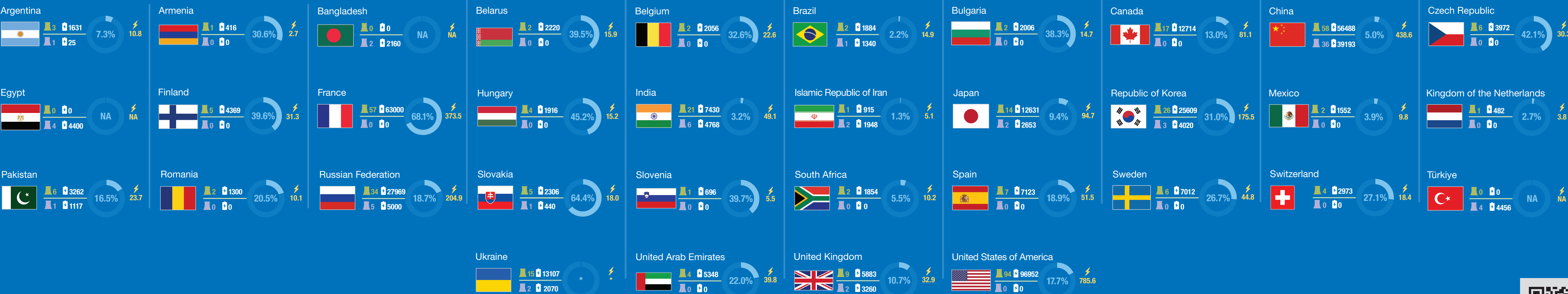
- SMRs and innovative reactor technologies advancing towards demonstration, commercialization and early deployment
- Operational flexibility to support hybrid energy systems
- Diverse applications of nuclear power beyond electricity generation
- Significant enhancement in safety, sustainability, cost-effectiveness and proliferation resistance



2026 and beyond

Projections for the year 2050	Capacity – Low MW(e)	Capacity – High MW(e)
Total	641 063	1 044 921
Asia – Central and Eastern	267 855	331 860
America – Northern	136 268	258 538
Europe – Eastern	76 149	108 155
Europe – Northern Western and Southern	66 675	145 684
Asia – Southern	46 654	89 920
Asia – Western	15 948	36 948
America – Latin and Caribbean	14 354	19 549
Asia – Southern and Eastern	6 500	21 800
Oceania	0	2 000

Country statistics



MW(e) – Megawatt electric
GW(e) – Gigawatt electric
GWh – Gigawatt hour
TWh – Terawatt hour

BWR – Boiling Light-Water Cooled and Moderated Reactor
FBR – Fast Breeder Reactor
GCR – Gas Cooled, Graphite Moderated Reactor
HTGR – High Temperature Gas Cooled Reactor

HWGCR – Heavy-Water Moderated, Gas Cooled Reactor
HWLWR – Heavy-Water Moderated, Boiling Light-Water Cooled Reactor
LWGR – Light-Water Cooled, Graphite Moderated Reactor
OMR – Organic Moderated Reactor

PHWR – Pressurized Heavy-Water Moderated and Cooled Reactor
PWR – Pressurized Light-Water Moderated and Cooled Reactor
SGHWR – Steam Generating Heavy-Water Reactor
SGR – Sodium Graphite Reactor

* Data were not submitted for 2025 by the time of publication.
NA – Not Applicable

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