

# Global Nuclear Power Plant and Equipment Market to Hit \$58.4 Billion by 2030 Driven by Demand for Low-Carbon Energy

□□ *Nuclear Power Plant and Equipment Market Forecasts 3.5% CAGR Growth Through 2030 Amid Energy Transition*

WILMINGTON, DE, UNITED STATES, July 8, 2025 /EINPresswire.com/ --

□ Global [Nuclear Power Plant and Equipment Market](#) Outlook: Growth, Trends, and Future Opportunities □

According to a recent report by Allied Market Research, the nuclear power plant and equipment market size was valued at \$41.1 billion in 2020 and is expected to grow to \$58.4 billion by 2030, registering a CAGR of 3.5% from 2021 to 2030. The demand for low-carbon, reliable, and high-energy-density power is driving nuclear energy's resurgence globally.



“

Nuclear power plant and equipment market to reach \$58.4B by 2030, fueled by clean energy demand, population growth & tech advancements.”

*Allied Market Research*

□ What is a Nuclear Power Plant?

Unlike traditional fossil fuel-based plants, nuclear power plants generate heat through nuclear fission — splitting atoms of uranium or plutonium to heat water into steam, which then drives a turbine to generate electricity. Unlike coal or gas combustion, this process emits zero carbon dioxide, making it a cornerstone in the global transition to [clean energy](#).

Download PDF Brochure: <https://www.alliedmarketresearch.com/request-sample/970>

□ Key Growth Drivers of the Nuclear Power Plant and Equipment Market

□ Clean Energy Demand

The growing concern over carbon emissions and climate change has led to a renewed focus on zero-emission energy sources. Nuclear power offers a reliable alternative to intermittent renewables like solar and wind, while supporting grid stability.

## □ Population Growth and Electrification

With rapid urbanization and population growth, global electricity demand continues to surge. Countries across Asia-Pacific, particularly India and China, face chronic power shortages and air pollution — both of which are pushing governments toward nuclear expansion.

## □ Advanced Reactor Technology

Modern reactor designs such as Pressurized Water Reactors (PWRs) and Boiling Water Reactors (BWRs) are being increasingly adopted for their improved safety features and efficiency. PWRs are expected to remain the dominant segment through 2030.

## □□ Market Segmentation Highlights

### □ By Equipment Type:

Auxiliary Equipment accounted for the largest market share in 2020 and is projected to maintain dominance.

Island Equipment supports the reactor island including steam generators and pressurizers.

### □□ By Reactor Type:

Pressurized Water Reactor (PWR) led the market in 2020 and is forecast to continue its lead.

Other reactor types include PHWR, BWR, GCR, LWGR, and advanced reactor designs.

## □ Regional Insights

### □ Asia-Pacific Leads the Market

Asia-Pacific held the highest revenue share in 2020, driven by:

Large-scale energy needs in India and China

Smog and pollution pushing for cleaner alternatives

Strong government backing for nuclear projects

Procure This Report (225 Pages PDF with Insights, Charts, Tables, and Figures):  
<https://bit.ly/3OLy5CS>

## □ Material and Safety Standards

Structural materials used in [nuclear reactors](#) must:

Resist radiation damage including swelling, embrittlement, and creep

Offer high thermal conductivity and low neutron absorption

Meet high mechanical performance under extreme heat and pressure

Such performance standards are crucial for reactor longevity and safety.

## □ Impact of COVID-19 on the Nuclear Power Plant and Equipment Market

The pandemic caused:

Temporary halts in construction projects across the U.S., China, France, UK, and UAE

Supply chain disruptions and labor shortages

Reduced electricity demand globally — U.S. power demand dropped by 3%, while France saw up to a 20% decline

Despite these setbacks, nuclear demand remained more stable than oil due to its base-load nature and crucial role in national grids.

## □ Future Outlook and Opportunities

With global climate policies pushing toward net-zero emissions, nuclear energy is expected to play a strategic role in energy portfolios. Investments in advanced reactor technology, modular reactors, and fusion research are creating new growth opportunities for the nuclear power plant and equipment market.

Additionally, the shift toward sustainable materials for reactor construction and growing private-public partnerships are expected to accelerate deployment.

## □ Key Players in the Nuclear Power Plant and Equipment Market

Major companies driving innovation and growth:

BWX Technologies, Inc.

General Electric

Toshiba International Corporation

ROSATOM

Mitsubishi Heavy Industries, Ltd.

Larsen & Toubro Limited

Dongfang Electric Co., Ltd.

Doosan Corporation

Korea Electric Power Corporation

Shanghai ALSTOM SA

Get a Customized Research Report: <https://www.alliedmarketresearch.com/request-for-customization/970>

## □ Conclusion

The nuclear power plant and equipment market is poised for sustainable growth fueled by:

Rising clean energy demand

Technological innovation

Expanding global electricity needs

With Asia-Pacific leading the charge and supportive government policies worldwide, the sector is set to play a pivotal role in the global clean energy future.

Trending Reports in Energy and Power Industry:

Small Modular Reactor Market

<https://www.alliedmarketresearch.com/small-modular-reactor-market-A14492>

Nuclear Waste Management Market

<https://www.alliedmarketresearch.com/nuclear-waste-management-market>

Nuclear Power Plant and Equipment Market

<https://www.alliedmarketresearch.com/nuclear-power-plant-and-equipment-market>

Nuclear Electric Power Generation Market

<https://www.alliedmarketresearch.com/nuclear-electric-power-generation-market-A09292>

Nuclear Spent Fuel Market

<https://www.alliedmarketresearch.com/nuclear-spent-fuel-market-A14854>

Nuclear Energy Market

<https://www.alliedmarketresearch.com/nuclear-energy-market-A07261>

Nuclear Turbine Generators Market

<https://www.alliedmarketresearch.com/nuclear-turbine-generators-market-A14860>

Nuclear Battery Market

<https://www.alliedmarketresearch.com/nuclear-battery-market>

Nuclear Waste Recycling Market

<https://www.alliedmarketresearch.com/nuclear-waste-recycling-market-A07606>

Nuclear Fuels Market

<https://www.alliedmarketresearch.com/nuclear-fuels-market-A08330>

Fusion Energy Market

<https://www.alliedmarketresearch.com/fusion-energy-market-A31820>

Steam Turbine MRO Market

<https://www.alliedmarketresearch.com/steam-turbine-mro-market-A15867>Turbine Control

System Market

<https://www.alliedmarketresearch.com/turbine-control-system-market-A11638>

Gas Turbine MRO Market

<https://www.alliedmarketresearch.com/gas-turbine-mro-market-A107722>

Steam Turbine Market

<https://www.alliedmarketresearch.com/steam-turbine-market> Gas Turbine Service Market

<https://www.alliedmarketresearch.com/gas-turbine-service-market-A17120>

Gas Turbine Market

<https://www.alliedmarketresearch.com/gas-turbine-market-A07223>

Aero Derivative Gas Turbine Market

<https://www.alliedmarketresearch.com/aero-derivative-gas-turbine-market-A09296>

About Us

Allied Market Research (AMR) is a full-service market research and business-consulting wing of Allied Analytics LLP based in Portland, Oregon. Allied Market Research provides global enterprises as well as medium and small businesses with unmatched quality of "Market Research Reports" and "Business Intelligence Solutions." AMR has a targeted view to provide business insights and consulting to assist its clients to make strategic business decisions and achieve sustainable growth in their respective market domain.

Pawan Kumar, the CEO of Allied Market Research, is leading the organization toward providing high-quality data and insights. We are in professional corporate relations with various companies and this helps us in digging out market data that helps us generate accurate research data tables and confirms utmost accuracy in our market forecasting. Each and every data presented in the reports published by us is extracted through primary interviews with top officials from leading companies of domain concerned. Our secondary data procurement methodology includes deep online and offline research and discussion with knowledgeable professionals and analysts in the industry.

David Correa

Allied Market Research

+1 800-792-5285

[email us here](#)

Visit us on social media:

[LinkedIn](#)

[Facebook](#)

[YouTube](#)

[X](#)

---

This press release can be viewed online at: <https://www.einpresswire.com/article/829319423>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2025 Newsmatics Inc. All Right Reserved.