

# Small Modular Reactor Global Market Insights 2025, Analysis and Forecast to 2030, by Market Participants, Regions, Technology, Application, Product Type

<https://marketpublishers.com/r/S958DDE6C64DEN.html>

Date: July 2025

Pages: 89

Price: US\$ 3,200.00 (Single User License)

ID: S958DDE6C64DEN

## Abstracts

Small Modular Reactor Market Summary

### Introduction

Small Modular Reactors (SMRs) represent an advanced nuclear technology featuring compact, scalable reactor designs typically generating 300 megawatts or less of electricity. These systems offer enhanced safety features, simplified construction, and modular deployment capabilities compared to traditional large nuclear power plants. SMR technology encompasses various reactor types including light water reactors utilizing proven technology, heavy water reactors offering fuel flexibility, high-temperature reactors enabling advanced applications, and innovative designs incorporating passive safety systems. Applications span electrical power generation for grid supply, industrial process heat for manufacturing, desalination for water production, and hydrogen production for clean energy applications. The technology addresses the need for clean, reliable baseload power while offering advantages in deployment flexibility, capital requirements, and safety characteristics. The market is driven by growing demand for clean energy solutions, nuclear technology advancement, and the need for flexible power generation to complement renewable energy sources.

### Market Size and Growth Forecast

The global small modular reactor market is projected to reach between USD 4.0 billion and USD 6.5 billion in 2025, with a compound annual growth rate (CAGR) of 3% to 8% through 2030, reflecting the gradual deployment of SMR technology and increasing investment in advanced nuclear systems.

## Regional Analysis

North America leads the market with significant government support and private investment in SMR development, particularly in the United States where multiple SMR designs are under development and licensing review. The region benefits from established nuclear expertise and supportive regulatory frameworks. Europe demonstrates strong interest driven by energy security concerns and carbon reduction targets, with the UK, France, and Poland actively pursuing SMR deployment. Asia Pacific shows growing potential with China, Japan, and South Korea investing in SMR technology development. Emerging markets in Latin America, the Middle East, and Africa present opportunities as energy demand grows and clean energy solutions become increasingly important.

## Application Analysis

**Power Generation:** Expected to dominate market development as SMRs provide clean, reliable baseload electricity generation. These systems offer advantages in deployment flexibility and capital requirements compared to large nuclear plants. Applications include grid supply, industrial power, and remote area electrification. Trends focus on grid integration, load following capabilities, and economic competitiveness.

**Desalination:** Projected significant growth driven by global water scarcity and the need for large-scale freshwater production. SMRs provide the thermal energy and electricity required for desalination processes. Market trends emphasize cogeneration applications and integration with existing water infrastructure.

**Industrial:** Anticipated robust expansion as industries seek clean, reliable process heat and power. SMRs serve chemical processing, steel production, and other energy-intensive industries requiring high-temperature heat. Development trends focus on industrial integration and process optimization.

**Hydrogen Production:** Expected strong growth as the hydrogen economy develops and clean hydrogen production becomes increasingly important. SMRs provide the high-temperature heat and electricity required for efficient hydrogen production processes. Trends emphasize integration with hydrogen infrastructure and clean energy systems.

## Type Analysis

**Light Water Reactors:** Projected to lead market deployment due to proven technology and established supply chains. These systems utilize conventional nuclear technology with enhanced safety features and modular design. Technological advances focus on simplification, cost reduction, and improved safety characteristics.

**Heavy Water Reactors:** Expected moderate growth offering fuel flexibility and established technology base. These systems provide advantages in fuel utilization and breeding capabilities. Development trends emphasize advanced fuel cycles and enhanced safety systems.

**High-temperature Reactors:** Anticipated significant expansion driven by industrial process heat applications and hydrogen production. These systems offer unique high-temperature capabilities for advanced applications. Trends focus on industrial integration and process efficiency optimization.

**Others:** Projected growth encompassing innovative reactor designs including molten salt reactors, fast reactors, and other advanced concepts. These systems offer potential advantages in safety, fuel utilization, and waste management. Development trends emphasize technological innovation and commercial viability.

## **Key Market Players**

Leading companies include Rolls-Royce, developing advanced SMR designs; Westinghouse Electric Company, leveraging nuclear expertise; General Electric Company, advancing reactor technology; NuScale Power, pioneering SMR commercialization; ULTRA SAFE NUCLEAR, developing innovative safety systems; Terrestrial Energy, advancing molten salt reactor technology; Brookfield Asset Management, providing financing and development; X Energy, developing high-temperature reactors; Fluor Corporation, providing engineering and construction services; Moltex Energy, advancing molten salt technology; and General Atomics, developing advanced reactor designs. These companies drive market growth through technological innovation and strategic partnerships.

## **Porter's Five Forces Analysis**

**Threat of New Entrants:** Low, due to extremely high capital requirements, regulatory barriers, and technical complexity limiting new market participants.

**Threat of Substitutes:** Moderate, with renewable energy sources and other clean

technologies serving as alternatives, though SMRs offer unique advantages in baseload power generation.

**Bargaining Power of Buyers:** Moderate, with utilities and governments seeking cost-effective, reliable power generation while balancing regulatory and safety requirements.

**Bargaining Power of Suppliers:** Low to moderate, due to specialized supply chains and limited suppliers of nuclear-grade components and materials.

**Competitive Rivalry:** Moderate, with companies competing on technology performance, safety characteristics, and commercial viability in a developing market.

### **Market Opportunities and Challenges**

Opportunities include the growing demand for clean, reliable baseload power to complement renewable energy sources. Government support and investment in advanced nuclear technology accelerate development. Industrial applications requiring high-temperature process heat create substantial market potential. International cooperation and technology sharing enhance deployment prospects.

Challenges encompass regulatory approval processes requiring extensive testing and validation. High capital requirements and long development timelines limit market entry. Public acceptance and political support remain variable across regions. Technical challenges in commercializing advanced reactor designs require significant investment and expertise.

## Contents

### **CHAPTER 1 EXECUTIVE SUMMARY**

### **CHAPTER 2 ABBREVIATION AND ACRONYMS**

### **CHAPTER 3 PREFACE**

3.1 Research Scope

3.2 Research Sources

3.2.1 Data Sources

3.2.2 Assumptions

3.3 Research Method

Chapter Four Market Landscape

4.1 Market Overview

4.2 Classification/Types

4.3 Application/End Users

### **CHAPTER 5 MARKET TREND ANALYSIS**

5.1 Introduction

5.2 Drivers

5.3 Restraints

5.4 Opportunities

5.5 Threats

### **CHAPTER 6 INDUSTRY CHAIN ANALYSIS**

6.1 Upstream/Suppliers Analysis

6.2 Small Modular Reactor Analysis

6.2.1 Technology Analysis

6.2.2 Cost Analysis

6.2.3 Market Channel Analysis

6.3 Downstream Buyers/End Users

### **CHAPTER 7 LATEST MARKET DYNAMICS**

7.1 Latest News

7.2 Merger and Acquisition

- 7.3 Planned/Future Project
- 7.4 Policy Dynamics

## **CHAPTER 8 HISTORICAL AND FORECAST SMALL MODULAR REACTOR MARKET IN NORTH AMERICA (2020-2030)**

- 8.1 Small Modular Reactor Market Size
- 8.2 Small Modular Reactor Market by End Use
- 8.3 Competition by Players/Suppliers
- 8.4 Small Modular Reactor Market Size by Type
- 8.5 Key Countries Analysis
  - 8.5.1 United States
  - 8.5.2 Canada
  - 8.5.3 Mexico

## **CHAPTER 9 HISTORICAL AND FORECAST SMALL MODULAR REACTOR MARKET IN SOUTH AMERICA (2020-2030)**

- 9.1 Small Modular Reactor Market Size
- 9.2 Small Modular Reactor Market by End Use
- 9.3 Competition by Players/Suppliers
- 9.4 Small Modular Reactor Market Size by Type
- 9.5 Key Countries Analysis
  - 9.5.1 Brazil
  - 9.5.2 Argentina
  - 9.5.3 Chile
  - 9.5.4 Peru

## **CHAPTER 10 HISTORICAL AND FORECAST SMALL MODULAR REACTOR MARKET IN ASIA & PACIFIC (2020-2030)**

- 10.1 Small Modular Reactor Market Size
- 10.2 Small Modular Reactor Market by End Use
- 10.3 Competition by Players/Suppliers
- 10.4 Small Modular Reactor Market Size by Type
- 10.5 Key Countries Analysis
  - 10.5.1 China
  - 10.5.2 India
  - 10.5.3 Japan

- 10.5.4 South Korea
- 10.5.5 Southeast Asia
- 10.5.6 Australia

## **CHAPTER 11 HISTORICAL AND FORECAST SMALL MODULAR REACTOR MARKET IN EUROPE (2020-2030)**

- 11.1 Small Modular Reactor Market Size
- 11.2 Small Modular Reactor Market by End Use
- 11.3 Competition by Players/Suppliers
- 11.4 Small Modular Reactor Market Size by Type
- 11.5 Key Countries Analysis
  - 11.5.1 Germany
  - 11.5.2 France
  - 11.5.3 United Kingdom
  - 11.5.4 Italy
  - 11.5.5 Spain
  - 11.5.6 Belgium
  - 11.5.7 Netherlands
  - 11.5.8 Austria
  - 11.5.9 Poland
  - 11.5.10 Russia

## **CHAPTER 12 HISTORICAL AND FORECAST SMALL MODULAR REACTOR MARKET IN MEA (2020-2030)**

- 12.1 Small Modular Reactor Market Size
- 12.2 Small Modular Reactor Market by End Use
- 12.3 Competition by Players/Suppliers
- 12.4 Small Modular Reactor Market Size by Type
- 12.5 Key Countries Analysis
  - 12.5.1 Egypt
  - 12.5.2 Israel
  - 12.5.3 South Africa
  - 12.5.4 Gulf Cooperation Council Countries
  - 12.5.5 Turkey

## **CHAPTER 13 SUMMARY FOR GLOBAL SMALL MODULAR REACTOR MARKET (2020-2025)**

- 13.1 Small Modular Reactor Market Size
- 13.2 Small Modular Reactor Market by End Use
- 13.3 Competition by Players/Suppliers
- 13.4 Small Modular Reactor Market Size by Type

## **CHAPTER 14 GLOBAL SMALL MODULAR REACTOR MARKET FORECAST (2025-2030)**

- 14.1 Small Modular Reactor Market Size Forecast
- 14.2 Small Modular Reactor Application Forecast
- 14.3 Competition by Players/Suppliers
- 14.4 Small Modular Reactor Type Forecast

## **CHAPTER 15 ANALYSIS OF GLOBAL KEY VENDORS**

- 15.1 Rolls-Royce
  - 15.1.1 Company Profile
  - 15.1.2 Main Business and Small Modular Reactor Information
  - 15.1.3 SWOT Analysis of Rolls-Royce
  - 15.1.4 Rolls-Royce Small Modular Reactor Revenue, Gross Margin and Market Share (2020-2025)
- 15.2 Westinghouse Electric Company
  - 15.2.1 Company Profile
  - 15.2.2 Main Business and Small Modular Reactor Information
  - 15.2.3 SWOT Analysis of Westinghouse Electric Company
  - 15.2.4 Westinghouse Electric Company Small Modular Reactor Revenue, Gross Margin and Market Share (2020-2025)
- 15.3 General Electric Company
  - 15.3.1 Company Profile
  - 15.3.2 Main Business and Small Modular Reactor Information
  - 15.3.3 SWOT Analysis of General Electric Company
  - 15.3.4 General Electric Company Small Modular Reactor Revenue, Gross Margin and Market Share (2020-2025)
- 15.4 NuScale Power
  - 15.4.1 Company Profile
  - 15.4.2 Main Business and Small Modular Reactor Information
  - 15.4.3 SWOT Analysis of NuScale Power
  - 15.4.4 NuScale Power Small Modular Reactor Revenue, Gross Margin and Market

Share (2020-2025)

## 15.5 ULTRA SAFE NUCLEAR

15.5.1 Company Profile

15.5.2 Main Business and Small Modular Reactor Information

15.5.3 SWOT Analysis of ULTRA SAFE NUCLEAR

15.5.4 ULTRA SAFE NUCLEAR Small Modular Reactor Revenue, Gross Margin and Market Share (2020-2025)

## 15.6 Terrestrial Energy

15.6.1 Company Profile

15.6.2 Main Business and Small Modular Reactor Information

15.6.3 SWOT Analysis of Terrestrial Energy

15.6.4 Terrestrial Energy Small Modular Reactor Revenue, Gross Margin and Market Share (2020-2025)

## 15.7 Brookfield Asset Management

15.7.1 Company Profile

15.7.2 Main Business and Small Modular Reactor Information

15.7.3 SWOT Analysis of Brookfield Asset Management

15.7.4 Brookfield Asset Management Small Modular Reactor Revenue, Gross Margin and Market Share (2020-2025)

Please ask for sample pages for full companies list

## Tables & Figures

### TABLES AND FIGURES

- Table Abbreviation and Acronyms
- Table Research Scope of Small Modular Reactor Report
- Table Data Sources of Small Modular Reactor Report
- Table Major Assumptions of Small Modular Reactor Report
- Figure Market Size Estimated Method
- Figure Major Forecasting Factors
- Figure Small Modular Reactor Picture
- Table Small Modular Reactor Classification
- Table Small Modular Reactor Applications
- Table Drivers of Small Modular Reactor Market
- Table Restraints of Small Modular Reactor Market
- Table Opportunities of Small Modular Reactor Market
- Table Threats of Small Modular Reactor Market
- Table Covid-19 Impact For Small Modular Reactor Market
- Table Raw Materials Suppliers
- Table Different Production Methods of Small Modular Reactor
- Table Cost Structure Analysis of Small Modular Reactor
- Table Key End Users
- Table Latest News of Small Modular Reactor Market
- Table Merger and Acquisition
- Table Planned/Future Project of Small Modular Reactor Market
- Table Policy of Small Modular Reactor Market
- Table 2020-2030 North America Small Modular Reactor Market Size
- Figure 2020-2030 North America Small Modular Reactor Market Size and CAGR
- Table 2020-2030 North America Small Modular Reactor Market Size by Application
- Table 2020-2025 North America Small Modular Reactor Key Players Revenue
- Table 2020-2025 North America Small Modular Reactor Key Players Market Share
- Table 2020-2030 North America Small Modular Reactor Market Size by Type
- Table 2020-2030 United States Small Modular Reactor Market Size
- Table 2020-2030 Canada Small Modular Reactor Market Size
- Table 2020-2030 Mexico Small Modular Reactor Market Size
- Table 2020-2030 South America Small Modular Reactor Market Size
- Figure 2020-2030 South America Small Modular Reactor Market Size and CAGR
- Table 2020-2030 South America Small Modular Reactor Market Size by Application
- Table 2020-2025 South America Small Modular Reactor Key Players Revenue

Table 2020-2025 South America Small Modular Reactor Key Players Market Share  
Table 2020-2030 South America Small Modular Reactor Market Size by Type  
Table 2020-2030 Brazil Small Modular Reactor Market Size  
Table 2020-2030 Argentina Small Modular Reactor Market Size  
Table 2020-2030 Chile Small Modular Reactor Market Size  
Table 2020-2030 Peru Small Modular Reactor Market Size  
Table 2020-2030 Asia & Pacific Small Modular Reactor Market Size  
Figure 2020-2030 Asia & Pacific Small Modular Reactor Market Size and CAGR  
Table 2020-2030 Asia & Pacific Small Modular Reactor Market Size by Application  
Table 2020-2025 Asia & Pacific Small Modular Reactor Key Players Revenue  
Table 2020-2025 Asia & Pacific Small Modular Reactor Key Players Market Share  
Table 2020-2030 Asia & Pacific Small Modular Reactor Market Size by Type  
Table 2020-2030 China Small Modular Reactor Market Size  
Table 2020-2030 India Small Modular Reactor Market Size  
Table 2020-2030 Japan Small Modular Reactor Market Size  
Table 2020-2030 South Korea Small Modular Reactor Market Size  
Table 2020-2030 Southeast Asia Small Modular Reactor Market Size  
Table 2020-2030 Australia Small Modular Reactor Market Size  
Table 2020-2030 Europe Small Modular Reactor Market Size  
Figure 2020-2030 Europe Small Modular Reactor Market Size and CAGR  
Table 2020-2030 Europe Small Modular Reactor Market Size by Application  
Table 2020-2025 Europe Small Modular Reactor Key Players Revenue  
Table 2020-2025 Europe Small Modular Reactor Key Players Market Share  
Table 2020-2030 Europe Small Modular Reactor Market Size by Type  
Table 2020-2030 Germany Small Modular Reactor Market Size  
Table 2020-2030 France Small Modular Reactor Market Size  
Table 2020-2030 United Kingdom Small Modular Reactor Market Size  
Table 2020-2030 Italy Small Modular Reactor Market Size  
Table 2020-2030 Spain Small Modular Reactor Market Size  
Table 2020-2030 Belgium Small Modular Reactor Market Size  
Table 2020-2030 Netherlands Small Modular Reactor Market Size  
Table 2020-2030 Austria Small Modular Reactor Market Size  
Table 2020-2030 Poland Small Modular Reactor Market Size  
Table 2020-2030 Russia Small Modular Reactor Market Size  
Table 2020-2030 MEA Small Modular Reactor Market Size  
Figure 2020-2030 MEA Small Modular Reactor Market Size and CAGR  
Table 2020-2030 MEA Small Modular Reactor Market Size by Application  
Table 2020-2025 MEA Small Modular Reactor Key Players Revenue  
Table 2020-2025 MEA Small Modular Reactor Key Players Market Share

Table 2020-2030 MEA Small Modular Reactor Market Size by Type  
Table 2020-2030 Egypt Small Modular Reactor Market Size  
Table 2020-2030 Israel Small Modular Reactor Market Size  
Table 2020-2030 South Africa Small Modular Reactor Market Size  
Table 2020-2030 Gulf Cooperation Council Countries Small Modular Reactor Market Size  
Table 2020-2030 Turkey Small Modular Reactor Market Size  
Table 2020-2025 Global Small Modular Reactor Market Size by Region  
Table 2020-2025 Global Small Modular Reactor Market Size Share by Region  
Table 2020-2025 Global Small Modular Reactor Market Size by Application  
Table 2020-2025 Global Small Modular Reactor Market Share by Application  
Table 2020-2025 Global Small Modular Reactor Key Vendors Revenue  
Figure 2020-2025 Global Small Modular Reactor Market Size and Growth Rate  
Table 2020-2025 Global Small Modular Reactor Key Vendors Market Share  
Table 2020-2025 Global Small Modular Reactor Market Size by Type  
Table 2020-2025 Global Small Modular Reactor Market Share by Type  
Table 2025-2030 Global Small Modular Reactor Market Size by Region  
Table 2025-2030 Global Small Modular Reactor Market Size Share by Region  
Table 2025-2030 Global Small Modular Reactor Market Size by Application  
Table 2025-2030 Global Small Modular Reactor Market Share by Application  
Table 2025-2030 Global Small Modular Reactor Key Vendors Revenue  
Figure 2025-2030 Global Small Modular Reactor Market Size and Growth Rate  
Table 2025-2030 Global Small Modular Reactor Key Vendors Market Share  
Table 2025-2030 Global Small Modular Reactor Market Size by Type  
Table 2025-2030 Small Modular Reactor Global Market Share by Type

## I would like to order

Product name: Small Modular Reactor Global Market Insights 2025, Analysis and Forecast to 2030, by Market Participants, Regions, Technology, Application, Product Type

Product link: <https://marketpublishers.com/r/S958DDE6C64DEN.html>

Price: US\$ 3,200.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/S958DDE6C64DEN.html>