

Global Nuclear Power Plant Control System Market Size study & Forecast, by Component (Hardware, Software, Services) by Solution (Supervisory Control & Data Acquisition (SCADA), Programmable Logic Controller (PLC), Distributed Control System (DCS), Industrial Safety, Others), by Application (Boiler & auxiliary control, Generator excitation & electrical control, Turbine & auxiliaries control system, Other Applications) and Regional Analysis, 2023-2030

<https://marketpublishers.com/r/GD01398C7022EN.html>

Date: February 2024

Pages: 200

Price: US\$ 4,950.00 (Single User License)

ID: GD01398C7022EN

Abstracts

Global Nuclear Power Plant Control System Market is valued approximately at USD XX billion in 2022 and is anticipated to grow with a healthy growth rate of more than XX% over the forecast period 2023-2030. A Nuclear Power Plant Control System is a complex and sophisticated set of technologies and processes designed to monitor, control, and manage various aspects of a nuclear power plant (NPP). The primary goal of the control system is to ensure the safe, reliable, and efficient operation of the nuclear reactor and associated systems. The key factors driving the market growth are increasing global energy demand, growing investment in the expansion of nuclear power capacity and growing modernization of existing plants that anticipated to create the lucrative demand for the market during forecast period 2023-2030.

Additionally, growing investment in the development of nuclear power plants significantly supports the growth of the Nuclear Power Plant Control System market. The Investments are required for the construction and expansion of nuclear power plants. As new plants are built or existing ones are expanded, there is a corresponding need for advanced control systems to ensure safe, efficient, and reliable operation. The

funding allocated for these projects often includes provisions for control system procurement and implementation. In May 2023 Japanese companies, including Onomichi Dockyard and Imabari Shipbuilding, are investing USD 80 million in a project led by UK startup Core Power to develop a floating nuclear power plant. As a result, the rising investment for the development of nuclear power plant is anticipated to support the market growth. Moreover, growing development of new control system technologies and rising demand for clean energy is anticipated to create the lucrative opportunity for the market. However, the availability of alternative energy sources stifles market growth throughout the forecast period of 2023-2030.

The key regions considered for the Global Nuclear Power Plant Control System Market study includes Asia Pacific, North America, Europe, Latin America, and Middle East & Africa. North America dominated the market in 2022 with largest market share owing to the growing aging infrastructure replacement, supportive government policies and incentives, presence of key market players, and increasing electricity demand. Whereas, Asia Pacific region is expected to grow with the fastest growth rate during the forecast period, owing to factors such as the increasing energy demand, rising concerns about air quality, and growing nuclear power expansion.

Major market player included in this report are:

Siemens AG

ABB Ltd

General Electric Company

Fortum Corporation

Framatome SA

Emerson Electric Co.

Mitsubishi Electric Corporation

NuScale Power, LLC

Rolls-Royce plc

Honeywell International Inc

Recent Developments in the Market:

In March 2023, Mitsubishi Electric Corporation has disclosed that its U.S. subsidiary, Mitsubishi Electric Power Products, Inc. (MEPPI), has secured a contract from Holtec International (Holtec), a leading provider of equipment and systems for the energy sector. The contract is for the accelerated design engineering of digital instrumentation and control systems (I&C) for Holtec's SMR-160 small modular reactor. The SMR-160 is an advanced small reactor renowned for its heightened safety and reliability, incorporating a natural cooling capability in the event of accidents.

Global Nuclear Power Plant Control System Market Report Scope:

Historical Data – 2020 - 2021

Base Year for Estimation – 2022

Forecast period - 2023-2030

Report Coverage - Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Segments Covered – Component, Solution, Application, Region

Regional Scope - North America; Europe; Asia Pacific; Latin America; Middle East & Africa

Customization Scope - Free report customization (equivalent up to 8 analyst's working hours) with purchase. Addition or alteration to country, regional & segment scope*

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values to the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within countries involved in the study.

The report also caters detailed information about the crucial aspects such as driving factors & challenges which will define the future growth of the market. Additionally, it also incorporates potential opportunities in micro markets for stakeholders to invest along with the detailed analysis of competitive landscape and product offerings of key players. The detailed segments and sub-segment of the market are explained below:

By Component:

Hardware

Software

Services

By Solution:

Supervisory Control & Data Acquisition (SCADA)

Programmable Logic Controller (PLC)

Distributed Control System (DCS)

Industrial Safety

Others

By Application:

Boiler & auxiliaries control

Generator excitation & electrical control

Turbine & auxiliaries control system

Other Applications

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

Middle East & Africa

Saudi Arabia

South Africa

Rest of Middle East & Africa

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