

# Methane Hydrate Extraction Market: Opportunity Analysis and Industry Forecast, 2021–2025

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# **Abstracts**

The methane hydrate extraction market is projected to reach 66,901.8 thousand cubic meter by 2025, growing at a CAGR of 6.3% from 2021 to 2025.

Methane hydrate is an ice cage like structure in which methane gas is trapped. As per the estimates by the United States Geological Survey (USGS), one cubic meter of methane hydrate may contain 164 cubic meter of natural gas. Therefore, it is considered as a future source of energy. Methane hydrate is formed under seabed and is formed under high pressure and low temperature conditions. During the process of methane hydrate extraction, the hydrate ice cubes dissociate, pressure is decreased and methane gas from hydrate escapes, which can be risky.

The commercialization of methane hydrate is under process; and therefore, the methane hydrate extraction market is studied based on the successful extraction undertaken. As per the USGS, as of 2018 the overall available methane hydrate reserves include 20,000 trillion cubic meters of the reserves. If these reserves can be harvested efficiently, they could meet the global energy requirements for the coming 1,000 years. In 2017, China and Japan have successfully extracted methane hydrate from seabed after couple of tests conducted from 2012. China and Japan have respectively extracted 430 and 260 thousand cubic meter methane hydrate in 2017; although these countries are far away from the industrial scale production.

Primary factors that contribute toward the growth of methane hydrate extraction market include high energy potential, availability, and rise in extraction activities. As mentioned earlier, one cubic methane hydrate releases 160 cubic meter natural gas, which shows the kind of potential methane hydrate has which could meet the global energy demand for almost next 1,000 years, if exploited properly. Hence, greater availability of methane



hydrate beneath seabed across the globe is expected the fuel the extraction activities by contributing significantly in this market. Moreover, government support to conduct extraction test is also creating the scope for methane hydrate extraction, which is further expected to play a key role while developing the growth of this market. However, life threatening threats associated with the methane hydrate extraction activities are anticipated to inhibit the growth of the overall market. Methane hydrate grows at high pressure and lower temperature under seabed. Its inefficient extraction could release methane gas from permafrost, which can lead to the occurrence of tsunami. Such threats may limit the participation of new countries in the discovery and extraction of methane hydrate, thus restraining the growth of the market growth in the coming years.

Some countries that actively participate in the discovery of methane hydrate include the U.S., Canada, China, Japan, India, and Russia. China is the first country that successfully extracted methane hydrate in 2017, thus dominating the market. Japan is the second country that extracted methane hydrate in the similar year. The largest hydrate reserve is found in Canada, which is around 500 trillion cubic meter. Growth in awareness regarding methane hydrate and its potential in largest methane hydrate reserves is expected to increase new extraction activities during the coming years with the help of investment from the Canadian government.

The major key players operating in the methane hydrate extraction market include Anadarko Petroleum Corporation, Schlumberger, BP plc., ConocoPhilips, EQUINOR ASA, PetroChina, Japan Petroleum Exploration Company Limited (JAPEX), INPEX Corporation, Oil and Natural Gas Corporation (ONGC), and Indian Oil Corporation Ltd. (IOCL).

### **KEY BENEFITS FOR STAKEHOLDERS**

The report outlines the current trends and future scenario of the methane hydrate extraction market size from 2017 to 2025 to understand the prevailing opportunities and potential investment pockets

Porter's five forces analysis helps to analyze the potential of buyers & suppliers and the competitive scenario of the industry for strategy building

Major countries in the region have been mapped according to their individual



Russia

extraction volume contribution to the regional market

The key drivers, restraints, and methane hydrate extraction market opportunities and their detailed impact analysis are elucidated in the study

The profiles of key players along with their key strategic developments are enlisted in the report

# By Country U.S. Canada China Japan India



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